

## **The fauna of the Acalyptrate families Micropezidae, Psilidae, Clusiidae, Acartophthalmidae, Anthomyzidae, Aulacigastridae, Periscelididae and Asteiidae (Diptera) in the Gemer area (Central Slovakia): supplement 1**

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The fauna of Acalyptrate families Micropezidae, Psilidae, Clusiidae, Acartophthalmidae, Anthomyzidae, Aulacigastridae, Periscelididae and Asteiidae (Diptera) in the Gemer area (Central Slovakia): supplement 1. – Čas. Slez. Muz. Opava (A), 62: 125-136, 2013.

**Abstract:** In the first supplement to the fauna of the Diptera Acalyptrata of the Gemer area (Slovakia) new records from the Muránska planina National Park are presented. Based on the material examined, records of Micropezidae (3 species), Psilidae (4), Clusiidae (9), Acartophthalmidae (2), Anthomyzidae (4), Aulacigastridae (2, a family recorded for the first time from Gemer area), Periscelididae (2) and Asteiidae (2) are given, with comments for each species about general distribution, biology, faunistic and/or nature conservation importance. Four species are new additions to the fauna of Slovakia, viz. *Chamaepsila andreji* (Shatalkin, 1996), *Ch. confusa* Shatalkin & Merz, 2010 (both Psilidae), *Clusiodes gentilis* (Collin, 1912) (Clusiidae) and *Periscelis winnertzii* Egger, 1862 (Periscelididae), and six other species are recorded from the Gemer or Muránska planina NP for the first time. Apart from the faunal novelties, *Rainieria calceata* (Fallén, 1820) (Micropezidae), *Clusiodes caledonicus* (Collin, 1912), *C. verticalis* (Collin, 1912) (Clusiidae), *Aulacigaster pappi* Kassebeer, 2001 (Aulacigastridae) and *Periscelis annulata* (Fallén, 1813) (Periscelididae) are the most significant species in the area, belonging to rare taxa distinctly jeopardized due to association with (in Central Europe) endangered habitats. A new host plant of *Stiphrosoma sabulosum* (Haliday, 1837) (Anthomyzidae) is recorded, viz. *Agrostis gigantea* Roth. (Poaceae).

**Key words:** Diptera, Micropezidae, Psilidae, Clusiidae, Acartophthalmidae, Anthomyzidae, Aulacigastridae, Periscelididae, Asteiidae, faunistics, nature conservation, Slovakia, Gemer

### **Introduction**

The families dealt with in this new contribution to the dipterous fauna of the Gemer area were the subject of two recent studies (Roháček 2012a, b), where the previous knowledge and recently obtained records of representatives of these acalyptrate families have been summarized. However, the additional field research performed in the Muránska planina National Park in 2013 revealed that the dipterous richness of this territory is far from being satisfactorily recognized. Surprisingly, several species formerly unknown in the whole of Slovakia have been found there in 2013 in addition to further records of rare, threatened or otherwise important species. Therefore, the results presented below are to be considered a supplement to both above studies aimed at widening and giving greater precision to the knowledge of the local fauna of these acalyptrate families and contributing so to the inventory of the biodiversity in the Gemer territory.

### **Material and methods**

The account of species recorded below from the Gemer area is based on material obtained during fieldwork performed in the Muránska planina NP in 2013 by J. Ševčík, J. Roháček, D. Kaspřák and M. Mantič. All specimens were identified by the author and are deposited in SMOC = Slezské zemské muzeum, Opava, Czech Republic. 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: ET = emergence trap, MT = Malaise trap.

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. Each newly recorded species is provided with information about general distribution, biology, faunistic and/or nature conservation importance; in taxa already known from the study area these comments can be found in Roháček (2012a,b).

## 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. All these national parks represent well-preserved karst areas with a rich mosaic of ecosystems, where both montane and thermophilous species of plants and animals, including several endemics, occur.

In 2013 three Malaise traps and one emergence trap were operated in the Muránska planina NP: both a Malaise trap and an emergence trap in the Hrdzavá dolina res. (48°44'52"N, 20°01'04"E, 540 m), another Malaise trap on the top plateau of the Poľudnica res. (48°45'48"N, 20°01'55"E, 920 m), and the remaining Malaise trap in the upper part of the Čertova dolina res. (48°44'20"N, 19°51'27"E, 715 m).

## Synopsis of species

### MICROPEZIDAE

Occurrence of members of the family in the Gemer area has recently been reviewed by Roháček (2012a), with a total of 10 species recorded. The material acquired in the Muránska planina NP in 2013 (see below) has not added species but confirmed the occurrence of the primeval forest inhabitant *Rainieria calceata* in the area after a long time.

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

**Literature:** see Roháček & Barták (1990), Roháček (2012a).

**Material:** Muránska planina NP, Hrdzavá dolina res., 48°44'49"N, 20°01'12"E, 500 m, sweeping vegetation in clearing of beech forest, 19.vi.2013, 1♂1♀, J. Roháček leg.

**Remarks:** This common Palearctic species has already been recorded from a few localities in the Muránska planina NP.

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

**Literature:** see Roháček & Barták (1990, as *Compsobata*), Roháček (2012a).

**Material:** Muránska planina NP, Poľudnica res, top plateau, MT, 24.v-21.vi.2013, 1♀, J. Ševčík et al. leg.

**Remarks:** Another common species already known from several localities in the Muránska planina NP.

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

**Literature:** see Roháček & Barták (1990).

**Material:** Muránska planina NP, Hrdzavá dolina res., beech forest, MT, 21.vi.-8.viii.2013, 1♀; Čertova dolina, upper part, MT, 20.vi.-8.viii.2013, 1♂1♀, J. Ševčík et al. leg.

**Remarks:** This distinctive European species is known to be a characteristic element of near natural and virgin deciduous forests (Roháček 2012a). It is rare in the Gemer area and was only recorded from Hradová Mt. and Suché doly res. near Tisovec in the Muránska planina NP and from Zádiel in the Slovenský kras NP (Roháček & Barták 1990) based on single specimens collected in 1980's. The above new records are thus important to confirm the recent occurrence of this (classified as vulnerable in the Czech Republic) species in the Muránska planina NP.

### PSILIDAE

This family has been represented by 18 species in the Gemer territory (Roháček 2012a). However, the samples obtained during our fieldwork in the Muránska planina NP in 2013 yielded two species new to the fauna of Slovakia in addition to other records, which are all listed below. Thus, 20 species of Psilidae are known in the Gemer area to date.

#### \*\**Chamaepsila (Chamaepsila) andreji* (Shatalkin, 1996) (Figs 1, 2)

**Material:** Muránska planina NP, Čertova dolina, upper part, MT, 8.viii.-19.ix.2013, 1♀, J. Ševčík et al. leg.



**Figs 1-3:** *Chamaepsila andreji* (Shatalkin) (Psilidae) and its habitat. 1 – the voucher female specimen, laterally; 2 – same, detail of head and thorax dorsally; 3 – Malaise trap in beech-fir in the Čertova dolina res. (Muránska planina NP) where the female was captured. Photo by J. Roháček.

**Remarks:** This little known species was described from a single male from Russia: N Ossetia, Caucasus (Shatalkin 1996) and has recently been found in northern Italy (Shatalkin & Merz 2010) near Verona (A. I. Shatalkin, personal communication 2013). It is distinctively coloured, having the entire thorax and head (with only ocellar triangle black, Fig. 2) orange-yellow, combined with black abdominal terga and apex of palpi (Fig. 1). It therefore most resembles *Ch. nigrosetosa* Frey, 1925 but differs from it by the black 1st flagellomere. The single female collected in the Muránska planina NP agrees well with Italian specimens (which have setae dark brown in contrast to yellow setae of the holotype from Caucasus, see Shatalkin & Merz 2010: 795) and the species is hence recorded here for the first time from Slovakia (and the whole of Central Europe). Because of its rarity nothing is known about the biology of this species. The above recorded specimen was caught in a Malaise trap installed on a slope in an old beech-fir forest (Fig. 3).

**\*\**Chamaepsila (Chamaepsila) confusa* Shatalkin & Merz, 2010 (Figs 4, 5)**

**Material:** Muránska planina NP, Poľudnica res., top plateau, 48°45'50"N, 20°01'54"E, 960 m, sweeping undergrowth of mixed forest, 18.ix.2013, 5♂8♀, J. Roháček leg.; same locality, MT, 8.viii.-18.ix.2013, 4♂5♀, 18.ix.-4.x.2013, 1♂5♀; Muránska planina NP, Hrdzavá dolina res., beech forest, ET, 8.viii.-17.ix.2013, 1♀; same locality, MT, 17.ix.-4.x.2013, 1♀, all J. Ševčík et al. leg.

**Remarks:** The species has recently been described by Shatalkin & Merz (2010) from 2♂2♀ originating from Switzerland and France. It is most similar to *Ch. persimilis* (Wakerley, 1959) but differs in having apically blackish palpi and completely black 1st antennal flagellomere (see Fig. 4). Its biology is unknown but it is interesting that the type specimens were collected in VII, VIII and X, both males swept and females caught in light and Malaise trap respectively. In the locality near the top of the Poľudnica Mt. the species was common on a largely grassy forest margin on a limestone outlier (Fig. 6) on September 18th and it was also captured in the nearby situated Malaise trap during August–September. Two females were also caught in an emergence trap and a Malaise trap operated in wind-damaged beech forest in the Hrdzavá dolina valley. Based on these data, the species seems to occur in late summer and the beginning of autumn. The identity of these specimens was confirmed by the examination of male genitalia structures which agree perfectly with the illustration provided by Shatalkin & Merz (2010: 788, Fig. 1). First records from Slovakia and a new easternmost occurrence limit of the species.

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

**Literature:** see Martinek (1986).

**Material:** Muránska planina NP, Čertova dolina, upper part, MT, 20.vi.-8.viii.2013, 1♂, J. Ševčík et al. leg.

**Remarks:** In the Gemer area this uncommon European species was only recorded from the Slovenský kras NP (Slavec near Plešivec, cf. Martinek 1986). The above record is the first from the Muránska planina NP.

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

**Literature:** see Martinek (1986) and Roháček (2012a).

**Material:** Muránska planina NP, Tisovec 3.6 km W, Suché doly res., 48°41'14"N, 19°53'44"E, 560 m, sweeping vegetation along brook, 20.vi.2013, 1♂1♀, J. Roháček leg.; Muránska planina NP, Čertova dolina, upper part, MT, 20.vi.-8.viii.2013, 4♀; Muránska planina NP, Hrdzavá dolina res., beech forest, MT, 21.vi.-8.viii.2013, 3♂, all J. Ševčík et al. leg.

**Remarks:** Although this European species is generally uncommon in Central Europe, the above records confirmed again that it is frequent in the Muránska planina NP, where it has found suitable conditions including a good supply of host plants (Orchidaceae).

## CLUSIIDAE

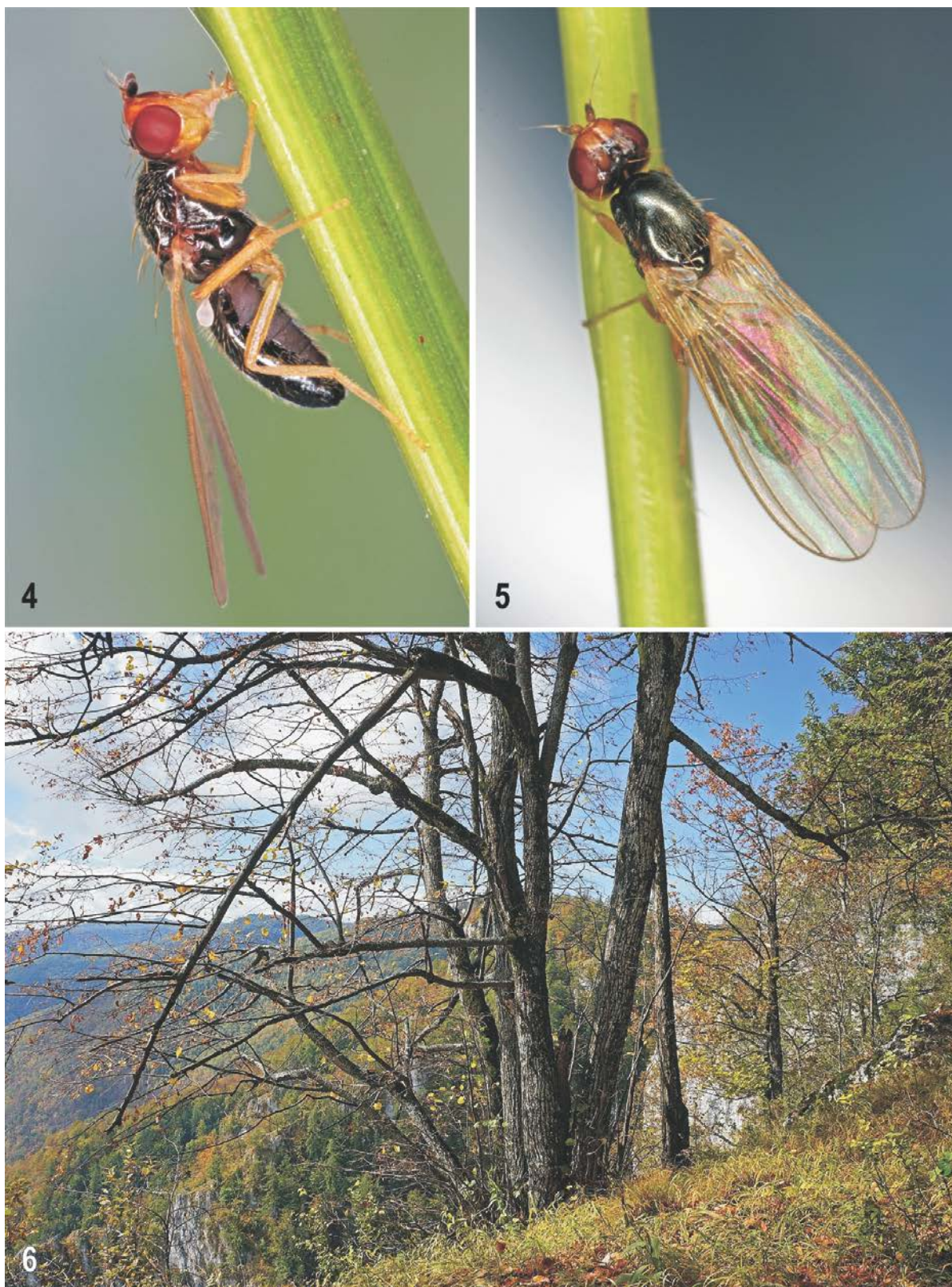
Altogether 8 species of this acalyprate family exclusively associated with woodlands has been known from the Gemer area (Roháček 2012b). The collecting effort of the author, J. Ševčík and D. Kaspřák in the Muránska planina NP in 2013 resulted in additions of two species, surprisingly including even one hitherto unrecorded from Slovakia or the Czech Republic. Thus, the Gemer fauna currently includes 10 species of Clusiidae. All additional records of Clusiidae from Muránska planina NP are listed below with comments on the most significant findings.

***Clusia flava* (Meigen, 1830)**

**Literature:** see Roháček (1995a, 2012b).

**Material:** Muránska planina NP, Hrdzavá dolina res., beech forest, MT, 21.vi.-8.viii.2013, 1♀; same locality, ET, 21.vi.8.viii.2013, 1♀, 8.viii.-17.ix.2013, 1♂4♀; Muránska planina NP, Poľudnica res., top





**Figs 4-6:** *Chamaepsila confusa* Shatalkin & Merz (Psilidae) and its habitat. 4 – male alive, laterally; 5 – female, dorsally; 6 – habitat of the species in the Muránska planina NP: grassy margin of the mixed forest at the edge of a limestone outlier of the Poľudnica Mt., 18.ix.2013. Photo by J. Roháček.

plateau, MT, 21.vi.-9.viii.2013, 3♀, 9.viii.-18.ix.2013, 1♂; Muránska planina NP, Čertova dolina, upper part, MT, 8.viii.-19.ix.2013, 1♂, all J. Ševčík et al. leg.

**Remarks:** This common woodland species is here recorded from additional localities in the Muránska planina NP.

**\**Clusia tigrina* (Fallén, 1820) (Fig. 5)**

**Literature:** see Roháček (1995a, 2012b).

**Material:** Muránska planina NP, Poľudnica res., top plateau, 48°45'50"N, 20°01'54"E, 960 m, sweeping undergrowth of mixed forest, 18.ix.2013, 1♀, J. Roháček leg.; same locality, MT, 18.ix.-4.x.2013, 1♀, J. Ševčík et al. leg.

**Remarks:** This vulnerable European species is a characteristic member of virgin forest saproxylic communities. As noted by Roháček (2012b) its frequent occurrence in the Muránska planina NP indicates the good state of forests in the area.

***Clusiodes albimanus* (Meigen, 1830)**

**Literature:** see Roháček (1995a, 2012b).

**Material:** Muránska planina NP, Hrdzavá dolina res., 48°44'49"N, 20°01'12"E, 500 m, sweeping undergrowth of beech forest, 21.vi.2013, 1♂, J. Roháček leg.; Muránska planina NP, Hrdzavá dolina res., beech forest, MT, 21.vi.-8.viii.2013, 3♀, 8.viii.-17.ix.2013, 1♀; Muránska planina NP, Čertova dolina, upper part, MT, 20.vi.-8.viii.2013, 1♀, 8.viii.-19.ix.2013, 1♂; Muránska planina NP, Poľudnica res, top plateau, MT, 24.v.-21.vi.2013, 1♂2♀, 8.viii.-18.ix.2013, 1♂1♀, J. Ševčík et al. leg.

**Remarks:** A common species living in various types of forests. It also occur frequently in the Muránska planina NP (cf. also Roháček 2012b).

**\**Clusiodes caledonicus* (Collin, 1912)**

**Literature:** see Roháček (2012b).

**Material:** Muránska planina NP, Čertova dolina res., 48°44'10"N, 19°51'31"E, 700 m, sweeping vegetation along brook in ravine, 20.vi.2013, 1♂, J. Roháček leg.; Čertova dolina, upper part, MT, 20.vi.-8.viii.2013, 2♂; Muránska planina NP, Poľudnica res, top plateau, MT, 21.vi.-9.viii.2013, 20♂12♀, 9.viii.-18.ix.2013, 1♂, J. Ševčík et al. leg.

**Remarks:** This species, hitherto considered to be the rarest Clusiid in Slovakia, has only been known from a single locality in the Gemer territory. Previously, only one male specimen was collected by Malaise trap in the Muránska planina NP: Šiance reserve, top plateau (Roháček 2012b). However, in 2013, *C. caledonicus* was surprisingly found in the Muránska planina in a further two localities, and, moreover, in numbers of specimens in the Malaise trap operated near top of the Poľudnica Mt.

**\*\**Clusiodes gentilis* (Collin, 1912)**

**Material:** Muránska planina NP, Čertova dolina, upper part, MT, 8.viii.-19.ix.2013, 1♂, J. Ševčík et al. leg.

**Remarks:** This species represents a new addition to the fauna of Slovakia. Previously it has been known from Europe: Andorra, Belgium, France, Great Britain (England), Ireland, The Netherlands, Switzerland, Poland, Northwest and Central European Russia (Roháček & Merz 2004) and from the Near East of Asia: Cyprus (Roháček 2004). It seems to be extremely rare in Central Europe. There are only single records from Poland (Trojan 1962: Ustka) and Switzerland (Merz et al. 2002, Lonsdale & Marshall 2007: Bemex, Chante-Merle). I have searched for *C. gentilis* in Slovakia and the Czech Republic for over 30 years but hitherto in vain. The above record of a single male is therefore important to confirm the occurrence of the species in Central Europe. Like other species of the genus *C. gentilis* has saproxylic larvae living in rotting wood of various deciduous trees. In Britain the species has been reared from pupae collected from birch and willow wood (Withers 1985).

***Clusiodes pictipes* (Zetterstedt, 1855)**

**Literature:** see Roháček (2012a).

**Material:** Muránska planina NP, Tisovec 3.6 km W, Suché doly res., 48°41'14"N, 19°53'44"E, 560 m, sweeping vegetation along brook, 20.vi.2013, 6♂, J. Roháček leg.

**Remarks:** The species, treated as data deficient in Slovakia by Jedlička & Stloukalová (2001), is apparently uncommon in the Gemer area (Roháček 2012a) because it has only been reported from Muránska Lehota env. (Muránska planina NP). The above record is therefore important confirming the occurrence of *C. pictipes* in another part of the Muránska planina NP.

***Clusiodes ruficollis* (Meigen, 1830)**

**Literature:** see Roháček (1995a, 2012a).

**Material:** Muránska planina NP, Tisovec 3.6 km W, Suché doly res., 48°41'14"N, 19°53'44"E, 560 m, sweeping vegetation along brook, 20.vi.2013, 1♂, J. Roháček leg.; Muránska planina NP, Poľudnica res, top

plateau, MT, 24.v.-21.vi.2013, 7♀; Muránska planina NP, Hrdzavá dolina res., beech forest, MT, 21.vi.-8.viii.2013, 1♀, J. Ševčík et al. leg.

**Remarks:** Additional records of this widespread European species demonstrated it is common in various woodland habitats in the Muránska planina.

**\**Clusiodes verticalis* (Collin, 1912)**

**Material:** Muránska planina NP, Šarkanica res., 48°42'45"N, 19°59'19"E, 580 m, sweeping margin of beech forest, 20.vi.2013, 1♂, J. Roháček leg.

**Remarks:** A widespread European species but generally uncommon in continental Europe including Slovakia. The scarce records from the latter country (Roháček 1995a) seem to be restricted to warmer regions and the species is treated as data deficient (DD) in the Slovak red list of Diptera (Jedlička & Stloukalová 2001). *C. verticalis* has hitherto not been recorded from the Gemer territory but there are some records from the neighbouring Poľana Biosphere Reserve (Roháček 2009b).

**\**Hendelia beckeri* Czerny, 1903**

**Literature:** see Roháček (1995a, 2012b).

**Material:** Muránska planina NP, Hrdzavá dolina res., 48°44'49"N, 20°01'12"E, 500 m, sweeping undergrowth of beech forest, 21.vi.2013, 1♀, J. Roháček leg.; Muránska planina NP, Hrdzavá dolina res., beech forest, MT, 21.vi.-8.viii.2013, 1♂1♀; same locality, ET, 21.vi.-8.viii.2013, 1♀, J. Ševčík et al. leg.

**Remarks:** The species seems to be a regular member of saproxylic dipterous communities in deciduous forests of the Muránska planina NP (cf. also Roháček 2012b) although it was treated as a data deficient (DD) species in the Slovak red list of Diptera (Jedlička & Stloukalová 2001).

## ACARTOPHTHALMIDAE

Roháček (2012b) first recorded this family from the Gemer area, where it is represented by 2 species (out of 3 known from Slovakia), all known from the Muránska planina NP. A few more records of these species obtained in 2013 from the same territory are presented below.

***Acartophthalmus bicolor* Oldenberg, 1910**

**Literature:** see Roháček (2012b).

**Material:** Muránska planina NP, Hrdzavá dolina res., 48°44'49"N, 20°01'12"E, 500 m, on bones of red deer, *Cervus elaphus*, 21.vi.2013, 1♂, J. Roháček leg.

**Remarks:** This predominantly necrophagous species is here recorded for second time from the Muránska planina NP (and the whole of the Gemer area).

***Acartophthalmus nigrinus* (Zetterstedt, 1848)**

**Literature:** see Roháček (2012b).

**Material:** Muránska planina NP, Pohronská Polhora, Podpoľana env. 48°46'01"N, 19°49'45"E, 865 m, on carrion of red deer, 19.ix.2013, 1♂5♀; Muránska planina NP, Čertova dolina res., 48°44'10"N, 19°51'31"E, 700 m, sweeping vegetation along brook in ravine, 20.vi.2013, 1♀; Muránska planina NP, Poľudnica res., top plateau, 48°45'50"N, 20°01'54"E, 960 m, on horse excrement, 21.vi.2013, 1♀, all J. Roháček leg.

**Remarks:** The above records confirmed that this species frequently occur in the Muránska planina NP.

## ANTHOMYZIDAE

The representatives of this small family occurring in the Gemer have been dealt with by Roháček (2012b), who recorded 9 species in the area and suggested that 5-7 more species could live there as well. It is noted that some rearing and collecting records from the Muránska planina NP have recently been included in the paper mainly devoted to host-plant association of W. Palaearctic Anthomyzidae (see Roháček 2013), but no species has been added to the local fauna of the family. On the other hand, samples obtained in the Muránska planina NP in 2013 yielded one additional species, although only 4 species of Anthomyzidae have been collected. The number of Anthomyzidae in the Gemer area thus reached 10 species.

***Anthomyza gracilis* Fallén, 1823**

**Literature:** see Roháček (1983, 1986a, 2012b, 2013).

**Material:** Muránska planina NP, nr. Maretkina, 970 m 48°45'57"N, 20°01'46"E, sweeping vegetation in forest clearing, 21.vi.2013, 2♂3♀, J. Roháček leg.

**Remarks:** An additional locality of the most common Anthomyzid species in the Gemer area and the whole of Slovakia.

### ***Anthomyza macra* Czerny, 1928**

**Material:** Muránska planina NP, Tisovec 3.6 km W, Suché doly res., 48°41'14"N, 19°53'44"E, 560 m, sweeping vegetation along brook, 20.vi.2013, 1♀; Muránska planina NP, Šarkanica res., 48°42'45"N, 19°59'19"E, 580 m, sweeping margin of beech forest, 20.vi.2013, 2♂1♀, all J. Roháček leg.

**Remarks:** This widespread Palaearctic species is restricted to the zone of deciduous forests. It infrequently occurs in undergrowth of mainly alluvial forests and seems to be associated with dicotyledonous plants (Roháček 2009a). The above records are the first not only from the Muránska planina NP but also from the entire Gemer area. In both above localities *A. macra* co-occurred in undergrowth with *Paranthomyza nitida* (see below).

### ***Paranthomyza nitida* (Meigen, 1838)**

**Literature:** see Roháček (1983, 1986a, 2012b).

**Material:** Muránska planina NP, Čertova dolina res., 48°44'10"N, 19°51'31"E, 700 m, sweeping vegetation along brook in ravine, 20.vi.2013, 1♂2♀; Muránska planina NP, Tisovec 3.6 km W, Suché doly res., 48°41'14"N, 19°53'44"E, 560 m, sweeping vegetation along brook, 20.vi.2013, 1♂5♀; Muránska planina NP, Šarkanica res., 48°42'45"N, 19°59'19"E, 580 m, sweeping margin of beech forest, 20.vi.2013, 4♂2♀, all J. Roháček leg.

**Remarks:** Further records of this common species living in dicotyledonous undergrowth of wet forests from the Muránska planina NP.

### ***Stiphrosoma sabulosum* (Haliday, 1837) (Fig. 3)**

**Literature:** see Roháček (2012b, 2013).

**Material:** Muránska planina NP, Mokrý Pol'ana res., 48°47'67"N, 20°06'42"E, 890 m, clearing in forest, B53, reared ex *Agrostis gigantea* collected on forest clearing 25.vi.2012, 1♀ f.brach. and 1♀ f.macropt. emerged 15.iv.-28.v.2013, J. Roháček leg.

**Remarks:** This common terricolous species was recorded from several localities in the Muránska planina NP (Roháček 2012b) and was also reared from a clump of *Festuca pratensis* collected in the area (Roháček 2013). However, *Agrostis gigantea* Roth. is a new host plant of the species (see Roháček 2009a, 2013). The above rearing record is also interesting because specimens have emerged about ten months after the plant was collected – thus demonstrating the overwintering of *S. sabulosum* larvae. Moreover, it includes the first macropterous specimen found in the Muránska planina NP (cf. Roháček 2012b).

## **AULACIGASTRIDAE**

This species-poor family is represented by only one genus *Aulacigaster* Macquart, 1835 and 3 or 4 species in the West Palaearctic area (see Carles-Tolrá 2004; Rung & Mathis 2011). The family has hitherto not been recorded from the Gemer territory although two species are known from Slovakia (Máca & Roháček 2009). Only in 2013 both these species were found in the Muránska planina NP. Larvae of *Aulacigaster* species develop in sapping runs on various trees and adult flies can be found sitting along them. It is also possible to catch them in traps baited by beer. In Central Europe all species of *Aulacigaster* have two generations yearly and adults of the second are known to overwinter in tree hollows.

### ***Aulacigaster leucopeza* (Meigen, 1830)**

**Material:** Muránska planina NP, Čertova dolina, upper part, MT, 20.vi.-8.viii.2013, 2♂; Poľudnica res, top plateau, MT, 24.v.-21.vi.2013, 2♂1♀, 8.viii.-18.ix.2013, 1♀, 18.ix.-4.x.2013, 1♀, J. Ševčík et al. leg.; Muránska planina NP, Hrdzavá dolina res., 48°44'49"N, 20°01'12"E, 500 m, beer traps in beech forest, 19.-21.vi.2013, 1♂, J. Roháček & J. Ševčík leg.

**Remarks:** A widespread Palaearctic species associated with woodland habitats, most frequent on oak trees but also occurring in other deciduous forests. It is probably common but due to its special habits scarcely collected.

### **\**Aulacigaster pappi* Kassebeer, 2001**

**Material:** Muránska planina NP, Murán castle env., 48°45'03"N, 20°02'54"E, 625 m, beer traps in deciduous forest on S slope, 19.-21.vi.2013, 1♂, J. Roháček & J. Ševčík leg.



**Remarks:** This species is hitherto only known from Central Europe (France, Germany, Switzerland, Czech Republic, Slovakia) but probably occurring also in surrounding areas. It was first recorded from Slovakia by Roháček (2001: Stakčín-Chotinka valley) under the name *A. neoleucopeza*, and latter reported also from Poľana Biosphere Reserve (Roháček 2009c: Čierny Potok). Thus, the above locality is the third from Slovakia.

## PERISCCELIDIDAE

Hitherto only a single species of this small family has been recorded from the Gemer area by Roháček (2012b), who also briefly characterized this group of flies associated with sapping wounds on deciduous trees, particularly oaks. No representative of Periscelididae has been known from the Muránska planina NP but in 2012-2013 two species were collected in this territory by means of beer traps. Surprisingly, these beer trap samples also included one species formerly unknown from Slovakia (see below) and the Gemer fauna thus comprises 2 species of the family. The nomenclature used here follow that by Mathis & Rung (2011).

### **\*\**Periscelis (Periscelis) winnertzii* Egger, 1862**

**Material:** Muránska Dlhá Lúka 2 km SE, 48°42'12"N, 20°05'51"E, 360 m, beer trap in hornbeam forest, 3.ix.-27.x.2012, J. Roháček & J. Ševčík leg.

**Remarks:** An unsufficiently known but distinctive species, hitherto only reported from Austria, France, Germany, Great Britain, Hungary, The Netherlands and Switzerland (Mathis & Rung 2011). However, the species was also recorded from 3 localities in the Podyjí NP in the Czech Republic (Máca et al. 2005). Because of its occurrence in the neighbouring Czech Republic and Hungary, the finding of *P. winnertzii* in Slovakia has been expected. The above new record from Slovakia thus represents the fourth species of Periscelididae in the country (cf. Máca 2009). The biology of this rare species was studied by Papp (1998), who found larvae developing in wound sap runs on oak trees. The third instar larva is the overwintering stage and adult flies emerge in July-September. All stages (including adults) are thus closely associated with sapping wounds in trees at the height of foliage which probably is the reason why they are so seldom collected.

Note: According to Mathis & Rung (2011) the name of the species was often misspelled in the literature, either as „winnertzii“ or „winnertzi“ and the original lettering is „winertzii“. However, Papp & Withers (2011) stated that the spelling „winertzii“ used in the original description by Egger (1862) must be a typing error because the species was named according to Johann Winnertz, whose name was correctly written also in the original derivatio nominis.

### ***Periscelis (Myodris) annulata* (Fallén, 1813)**

**Literature:** see Máca (1986) and Roháček (1987, 2012b).

**Material:** Muránska planina NP, Murán castle env., 48°45'03"N, 20°02'54"E, 625 m, beer traps in deciduous forest on S slope, 19.-21.vi.2013, 1♂, J. Roháček & J. Ševčík leg.

**Remarks:** A widespread European species (for the most recent review of distribution see Mathis & Rung 2011), formerly misreported also from the Nearctic Region. In Slovakia it has only been known from the Slovenský kras: Zádiel (Máca 1986) and from the Bukovské vrchy Mts: Ruský Potok (Roháček 1995b). The above record is the first from the Muránska planina NP.

## ASTEIIDAE

Roháček (2012b) summarized the knowledge about occurrence of Asteiidae in the Gemer area, listing 5 species. No additional species has been found during fieldwork in the Muránska planina in 2013, so only additional records of 3 species are presented below.

### ***Asteia amoena* Meigen, 1830**

**Literature:** see Roháček (1986b, 2012b).

**Material:** Muránska planina NP, Pohronská Polhora, Podpoľana env. 48°46'01"N, 19°49'45"E, 865 m, sweeping undergrowth of mixed forest, 19.ix.2013, 1♂, J. Roháček leg.

**Remarks:** A common species recorded from an additional locality in the Muránska planina NP, here surprisingly found in forest undergrowth.

### ***Leiomyza dudai* Sabrosky, 1956**

**Literature:** see Roháček (1986b, 2012b).

**Material:** Muránska planina NP, Poľudnica res, top plateau, MT, 21.vi.-8.viii.2013, 1♀, J. Ševčík et al. leg.

**Remarks:** Although this mycophagous species is common in Slovakia, it has previously only once been recorded from the Muránska planina NP (Roháček 1986b: Muráň).

### ***Leiomyza scatophagina* (Fallén, 1823)**

**Literature:** see Roháček (1986b, 2012b).

**Material:** Muránska planina NP, Hrdzavá dolina res., beech forest, ET, 8.viii.-17.ix.2013, 1♀, J. Ševčík et al. leg.

**Remarks:** There were only two records of this uncommon species from Gemer (Roháček 1986b). The above specimen confirmed the contemporary occurrence in the Muránska planina NP.

## **Discussion and conclusions**

The new additions to the Gemer fauna all originate from the Muránska planina NP. Besides several common species, a number of taxa that are rare, endangered or even formerly unrecorded in Slovakia were also found in the area in 2013. Quite unexpectedly these include two species of Psilidae, viz. *Chamaepsila andreji* and *Ch. confusa*, both recently described taxa, that are important additions to the dipterous fauna of the whole of Central Europe. This is particularly surprising considering the fact that recently (Roháček 2012a) another species of *Chamaepsila* new to Central Europe has been recorded from Muránska planina NP, viz. *Ch. strigata* (Collin, 1959).

Similarly, *Clusiodes gentilis* (Clusiidae) found in the Čertova dolina reserve, albeit as only a single male, is a very important record for the Central European fauna inasmuch as there were otherwise only two isolated records in this area (Poland, Switzerland). Finally, the fourth addition to the Slovak dipterous fauna is *Periscelis winnertzii* Egger, 1862, a very little known thermophilous species of Periscelididae, mainly associated with oak forest, which was found in a hornbeam wood close to the margin of the Muránska planina NP. All these species, possibly with the exception of *Ch. confusa*, can be considered endangered in Central Europe because they are very scarcely recorded, despite extensive and long term collecting effort in this region.

Further important faunal elements found in the Muránska planina NP are represented by *Rainieria calceata* (Micropezidae), a characteristic member of the saproxylic primeval forest fauna, re-discovered in the area after more than 30 years, *Clusiodes verticalis* (first recorded from the area) and *C. caledonicus* (Clusiidae), also threatened representatives of saproxylic communities, or *Aulacigaster pappi* (Aulacigastridae) and *Periscelis annulata* (Periscelididae) associated with sap runs of oaks and some other deciduous trees.

A total of 10 species are here added to the fauna of the Muránska planina NP, including the 4 species new to Slovakia mentioned above and also *Chyliza nova*, *Clusiodes verticalis*, *Anthomyza macra*, *Aulacigaster leucopeza*, *A. pappi* and *Periscelis annulata*.

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#### **Fauna akalyptprátních čeledí Micropezidae, Psilidae, Clusiidae, Acartophthalmidae, Anthomyzidae, Aulacigastridae, Periscelididae and Asteiidae (Diptera) v oblasti Gemeru (střední Slovensko): 1. doplněk**

V prvním doplňku fauny akalyptprátních dvoukřídlých v Gemerské oblasti (Slovensko) jsou prezentovány údaje z Národního parku Muránska planina získané terénním výzkumem v r. 2013. Na základě nově prostudovaného materiálu jsou z této oblasti uvedeny údaje o zjištěných druzích čeledí Micropezidae (3 druhy), Psilidae (4), Clusiidae (9), Acartophthalmidae (2), Anthomyzidae (4), Aulacigastridae (2 druhy, tato čeleď je poprvé hlášena z oblasti Gemeru), Periscelididae (2) a Asteiidae (2). Každý z prezentovaných druhů je pojednán s informacemi o jeho celkovém rozšíření, faunistice na Slovensku, bionomii a významu pro ochranu přírody. Celkem 4 druhy jsou hlášeny jako nové pro faunu Slovenska, viz. *Chamaepsila andreji* (Shatalkin, 1996), *Ch. confusa* Shatalkin & Merz, 2010 (oba z čeledi Psilidae), *Clusiodes gentilis* (Collin, 1912) (Clusiidae) a *Periscelis winnertzii* Egger, 1862 (Periscelididae), a dalších 6 druhů je z oblasti Gemeru nebo Muránské planiny hlášeno poprvé. Kromě výše uvedených faunistických novinek, patří k nejvýznamnějším druhům v oblasti *Rainieria calceata* (Fallén, 1820) (Micropezidae), *Clusiodes caledonicus* (Collin, 1912), *C. verticalis* (Collin, 1912) (Clusiidae), *Aulacigaster pappi* Kassebeer, 2001 (Aulacigastridae) a *Periscelis annulata* (Fallén, 1813) (Periscelididae), protože jde o vzácné taxony, více či méně ohrožené kvůli své vazbě na mizející nebo jinak (ve střední Evropě) ohrožené ekosystémy. Je také prokázána nová hostitelská rostlina hloubilky *Stiphrosoma sabulosum* (Haliday, 1837) (Anthomyzidae), a to tráva *Agrostis gigantea* Roth. (Poaceae).

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