

## Twenty species of Diptera new to Hungary

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**Abstract:** First records and corrections to the 2001 Checklist for species of Psychodidae (*Sycorax*), Macroceridae, Mycetophilidae, Mythicomyiidae, Hybotidae, Empididae, Microphoridae, Micropezidae, Sciomyzidae, Lauxaniidae, Agromyzidae, Milichiidae, Ephydriidae, Sphaeroceridae and Trixoscelididae are reported (additional 20 spp.). *Schumannimyia pseudohyalinata* sp. n. is described from Hungary. With ten figures.

**Key words:** Psychodidae, Macroceridae, Mycetophilidae, Mythicomyiidae, Hybotidae, Empididae, Microphoridae, Micropezidae, Sciomyzidae, Lauxaniidae, Agromyzidae, Milichiidae, Ephydriidae, Sphaeroceridae, Trixoscelididae, *Sycorax*, *Oedalea*, *Schumannimyia*, faunistic survey, new records, Hungary

### INTRODUCTION

The critical list of the dipterous insects of our country, “*Checklist of the Diptera of Hungary*” was published three years ago (Papp 2001). Of course, that book cannot contain the results of our collection programme in 2001 or later. In addition, there are omissions, misinterpretations, etc. published in the Checklist, consequently not only additional species but corrections to the Checklist are to be expected in the forthcoming years.

A part of new findings based on specimens captured in 2003 is given in the present paper. All the specimens below are preserved in the Diptera Collection of the Department of Zoology, Hungarian Natural History Museum, Budapest (below: HNHM). The list of the abbreviations and translations of the Hungarian words on labels were published in the former papers for the project “Large blank spots in the Diptera fauna of Hungary” (e.g. Papp & Földvári 2000, Ševčík & Papp 2001). The specimens were collected by László Papp, unless otherwise stated.

### PSYCHODIDAE – SYCORACINAE

The genus *Sycorax* Haliday, 1839 contains minute psychodids, which are living in the fresh water of mountain brooks, etc. Formerly only one species, *S. silacea*

Haliday was known from Hungary, which was captured at one site only, though in a higher number (Zempléni-hg.: Kőkapu, 1958. V. 23., leg. Szabó J., 28 males, 14 females). In the course of our faunistic survey from 1999, 48 specimens of *Sycorax* were collected in several sites of the Hungarian low mountains. Though I had not enough time to prepare genitalia of all the males, two species new for the Hungarian fauna were also recorded.

*Sycorax bicornua* Krek, 1970 – 7 males: Melegmányi-v. TT: Pécs, Melegmányi-völgy, 2002. május 31., patak fölött és mellett; 1 male: ibid., 2003. 06. 19.; 1 male: Ny-Mecsek: Orfű, Szuadó-v., szurdok, 2002. 05. 31.; 1 male: Kelet-Mecsek TK, Óbánya, Óbányai (Öreg)-patak fölött és mellett, 2003. 06. 16.

This is a species new for our fauna. Szabó (1983) keyed it and also the Checklist included it as a species expected to occur in Hungary.

*Sycorax silacea* Haliday, 1839 – Fifteen males were identified from the Bükk N. P.: Miskolc (Sebes-víz), Duna-Ipoly N. P.: Diósjenő (Kemence-p. felső folyása), Szokolya (Vasfazék-v.), W Mecsek Mts: Hetvehely (Nyárás-patak), Kelet-Mecsek TK: Óbánya (Óbányai-p.), Zemplén TK: Pálháza [correctly: Regéc], Ördög-v., Bózsva (Senyő-v.).

*Sycorax tonnoiri* Jung, 1954 – 1 male: Bükki N. P.: Miskolc, Sebes-víz patak fölött és mellett, 1999. június 10.; 1 male: Kőszegi TK: Kőszeg, Hétforrás, patak fölött, 2003. júl. 2.; 1 male: ibid., Hármás-p. fölött és mellett, 2000. június 28.; 2 males: Zemplén TK. Nagyhuta: Senyő-völgy, patak fölött és mellett, 1999. június 9., leg. Papp L., Szappanos A.

Szabó (1983) already keyed and listed this species as expected to occur, but this is its first published record.

#### MACROCERIDAE

*Macrocera gemagea* Bechev, 1991 – 1 male: Melegmányi-v. TT: Pécs, Melegmányi-p., patak fölött és mellett, 2003. 06. 19.

This species was described (and hitherto known only) from Bulgaria (Bechev 1991). It is related to a number of Mediterranean species, of which this species is not only new for the Hungarian fauna, but the first representative of that species group in our country.

*Macrocera* sp. – 1 male: Verőce: Magyarkút, Keskenybükki-patak völgye, patak mellett, 2003. szept. 21.

A very interesting specimen, whose genitalia are similar to those of *M. crassicornis* Winnertz, 1863. Contrarily, its body is only slightly more than half of the mean body size of that species. What is really surprising, the date of its capture: we have no other autumn datum for adults of any *Macrocera* species in Hungary.

#### MYCETOPHILIDAE

*Brachypeza radiata* Jenkinson, 1908 – 3 males, 4 females: Duna-Ipoly N.P., Szokolya, Les-v., patak medrében, 2003. jún. 27.

A species new for the Hungarian fauna.

**Megophthalmidia crassicornis** (Curtis, 1837) – 3 males: Kőszegi TK: Kőszeg, Hétforrás, 2003. jún. 30.; 1 male, 1 female: *ibid.*, Hármaspatak fölött, 2003. 07. 01.; 1 female: Velem, Hosszú-völgy, Szerdahelyi-p., patak fölött, 2003. júl. 1.

It was reported from Budapest, Pestszentlőrinc, Péterhalmi-erdő, based on a single female (Ševčík and Papp 2001).

#### MYTHICOMYIIDAE

**Platypygus bellus** Loew, 1869 – 6 males, 7 females: K.N.P., Fülöpháza, Szappanszék, 2003. 06. 12. fátylvirágról [on *Gypsophila*] és kutyatejről [on *Euphorbia*], leg. Papp L.; 2 males, 2 females: *ibid.*, homokbuckás, 22-es út (20. km) közelében, fátylvirágról [on *Gypsophila*].

On the same day and from the same sites also Dr. A. Szappanos captured more than 10 specimens. I published this species as new to Hungary last year (Papp 2003), based on a single male collected at Kecskemét (Borbás), on *Gypsophila*. Formerly known from Armenia, Azerbaijan, Georgia, Russia, Turkey and Egypt (Evenhuis 2002).

**Platypygus ridibundus** (Costa, 1863) – I have no material evidence of its occurrence in Hungary, as it was listed in Evenhuis (2002). Actually there are specimens from Romania: Orsova (12 males, 6 females: Vf. Alion, 250 m, *Minuartia virágjáról*, 1995. V. 7., leg. Ádám L.) in the HNHM. A species expected to occur also in Hungary.

#### HYBOTIDAE

#### **Oedalea** Meigen, 1820

Wéber (1966, 1975) reported four species of this genus from Hungary. Papp & Földvári (2002) and Papp (2003) added three more species to the Hungarian list. During the selection to families and partial identification of the dipterous materials collected in 2003, all the 480 specimens of *Oedalea* from Hungary (captured from 1957 to date) were revised. Two additional species were found (see below). *Oe. flavipes* Zetterstedt, 1842 (173 ex.) and *Oe. zetterstedti* Collin, 1926 (144 ex.) are the dominant species in Hungary. *Oe. stigmatella* Zetterstedt, 1842 (25 ex.) seems less common. I publish some new data for the rare species below. The revised Hungarian list contains 8 species and other two are still to be expected to occur: *Oe. kowarzi* Chvála, 1981 and *Oe. tristis* Scholz, 1851 (specimens from the Vysoké Tatry Mts in the HNHM) (cf. Chvála 1989).

**Oedalea apicalis** Loew, 1859 – 1 male: Duna-Ipoly NP: Szokolya, Les-v., patak fölött és mellett, 2003. jún. 9.; 1 female: *ibid.*, Szén-p. fölött és mellett, 2000. május 13.

**Oedalea austroholmgreni** Chvála, 1981 – 1 male: Kőszegi TK: Kőszeg, Hármaspatak fölött és mellett, 2001. 06. 27.

The female, which Wéber (1975: 88) reported as *Oe. holmgreni* Zett. from the Zemplén Mts [N. Péterménkö, 1960. VI. 24., leg. Zsirkó], is still in the HNHM. It may belong to *Oe. austroholmgreni*, but one cannot be sure of it. So I regard this species as new to Hungary. *Oedalea holmgreni* Zetterstedt, 1852 should be deleted from the Hungarian list (cf. Földvári 2001).

**Oedalea hybotina** (Fallén, 1816) – 1 male: Kelet-Mecsek TK, Óbánya: Óbányai-patak fölött, mellett, 2001. 05. 28.

A rare species (Papp & Földvári 2002).

**Oedalea montana** Chvála, 1981 – 2 males: Duna-Ipoly NP: Szokolya, Szén-p. fölött és mellett, 2000. május 13.; 1 male: Zemplén TK, Nagyhuta: Kemence-p. fölött és mellett, 1999. június 8., leg. Papp L., Szappanos A.; 2 males: Zemplén TK: Regéc: Ördög-v., patak fölött, mellett, 2001. június 13., leg. Papp L., Szappanos A.

New to Hungary.

**Oedalea tibialis** Macquart, 1827 – I published this species as new to Hungary last year (Papp 2003), based on a single male collected at Aggtelek. It turned out, that this is one of the common species in our country. Altogether 77 males and 51 females were identified from several parts of our country (though mainly from our low mountains).

#### EMPIDIDAE

**Clinocera (Kowarzia) barbatula** (Mik, 1880) – 4 males, 4 females: Kőszegi TK: Kőszeg, Hétforrás, patak fölött, 2003. júl. 2.

It was first collected and reported from this site (Papp & Földvári 2002); it is known from the Kőszeg Mts only (Papp 2003).

**Clinocera (Kowarzia) bipunctata** (Haliday, 1833) – 2 males: Kőszegi TK: Kőszeg, Hétforrás, patak fölött, 2003. júl. 2.

A widespread although uncommon species new for the Hungarian fauna (cf. Földvári 2001).

**Clinocera (Hydromia) fontinalis** (Haliday, 1833) – 1 male: Kőszegi TK: Kőszeg, Hétforrás, patak fölött, 2003. jún. 30.

New to Hungary.

**Wiedemannia (Clinocerella) oldenbergi** (Engel, 1918) – 1 male, 1 female: Kőszegi TK: Kőszeg, Hétforrás, patak fölött, 2003. júl. 2. A very rare Alpine species new to Hungary. It was described from Vallombrosa, but not listed in the Italian fauna. Otherwise it was formerly known from Austria and Germany only. Our male's genitalia are rather similar to the Engel's figure (Engel 1940: 182, Taf. XII: 107); distiphallus is saxophone-shaped.

#### MICROPHORIDAE

**Microphor crassipes** Macquart, 1827 – It was first recorded from Hungary rather recently (Papp & Földvári 2002). We managed to capture also the following specimens: 7 males: Nógrádszakál, Rárópuszta, Ipoly partján, 2003. május 27./29.; 1 male: ibid., tölgyes, aljnövényzet, május 28.; 1 male, 1 female: ibid., útszéli crnyősök, május 27.; 1 male: Zemplén TK, Nagyhuta, Rostalló, virágokról, 2002. júl. 4., leg. Szappanos A.

**Microphor strobli** Chvála, 1986 – 4 males: Ipolytarnóc, Borókás-p. mellett, 2003. május 28.; 1 male: Melegmány TT: Pécs, Melegmányi-v., patak mellett, 2002. 05. 29.

This species is new for the Hungarian fauna (the fourth *Microphor* species in our country).

## MICROPEZIDAE

**Neria femoralis** Meigen, 1826 – 1 male: Nógrádszakál, Rárópuszta, Ipoly partján, 2003. május 27.; 4 males, 1 female: Diósjenő, Király-kút környéke, Petasites / Petasites hybridus, 1997. VI. 10.

It was keyed by Soós (1980) as a species expected to occur in Hungary, but these are the first voucher specimens from our country.

**Raineria latifrons** (Loew, 1870) – 1 female: Melegmányi-v. TT: Pécs, Anyákútja. 2003. június 19., korhadt bükkfa törzsekről; 3 females: ibid., Nagy-mély-v. / Melegmányi-v., patak fölött és mellett, 2000. 06. 15.; 2 females: Zemplén TK, Regéc: Ördög-v., patak fölött és mellett, 1999. június 28., leg. Papp L., Bajza Zs. / 2001. június 13., leg. Papp L. és Szappanos A.; 1 female: Kelet-Mecsek TK: Mecseknádasd, 2003. június 16., Varasdi-patak fölött és mellett.

It was recorded from Hungary for the first time rather recently (van der Weele 1998) based on a single specimen. That male is in the collection of the HNHM. It seems that adults occur in mountain valleys near brooks.

## SCIOMYZIDAE

**Pherbellia annulipes** Zetterstedt, 18 – 1 male: Kőszegi TK, Kőszeg, Hétforrás, patak fölött, 2003. jún. 30.; 1 male: Kőszegi TK: Velem, Hosszú-völgy, Szerdahelyi-p. fölött, 2003. júl. 1.

It was known from a number of European countries but mostly north of Hungary (Rozkošný 1987). Also this species is new for the Hungarian fauna.

## LAUXANIIDAE

**Sapromyza viciespunctata** Czerny, 1932 – 1 male: Duna-Dráva N.P., Őrtilos, árter. 2003. június 17., virágokról.

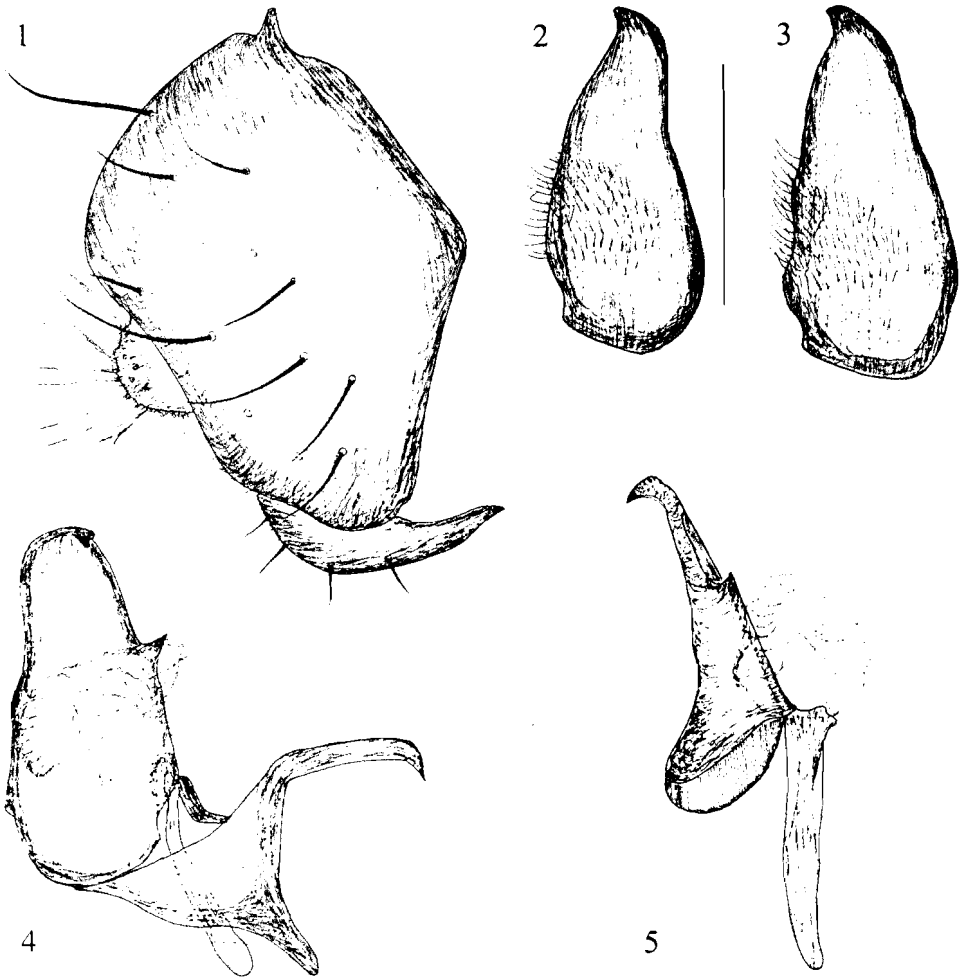
It was reported from Hungary for the first time last year (Papp 2003), from Bélavár, not far from this second site, which is also a part of the Dráva inundation area.

**Schumannimyia pseudohyalinata** sp. n.  
(Figs 1, 4–5, 8, 10)

Holotype male (HNHM, apical scutellar setae lost, apex of posterior *dc* setae broken off): Verőce: Magyarkút, Keskenybükki-p. v., patak mellett, 2003. június 9., leg. Papp L.

Measurements (in mm): body length 4.03 (together with abdomen prepared, now kept in a plastic microvial with glycerol), wing length 3.92, wing breadth 1.39.

Most of its body characteristics are the same as in *S. hyalinata*. Frons subshiny, orbital plate slightly more shiny, mesonotum and scutellum with thick grey microtomentum.



Figs 1–5. *Schumannimyia* spp., male genitalia. – 1: *S. pseudohyalinata* sp. n., holotype, epiandrium, cercus and surstylus in lateral view; 2–3: *S. hyalinata* (Meigen), gonopods in lateral view: 2: Bükk Mts; 3: Csévharaszt; 4–5: *S. pseudohyalinata* sp. n., holotype: 4: gonopod, hypandrium, phallapodeme and phallus (mostly covered) in lateral view; 5: left gonopod, phallus and phallapodeme in ventral view. Scale 0.2 mm.

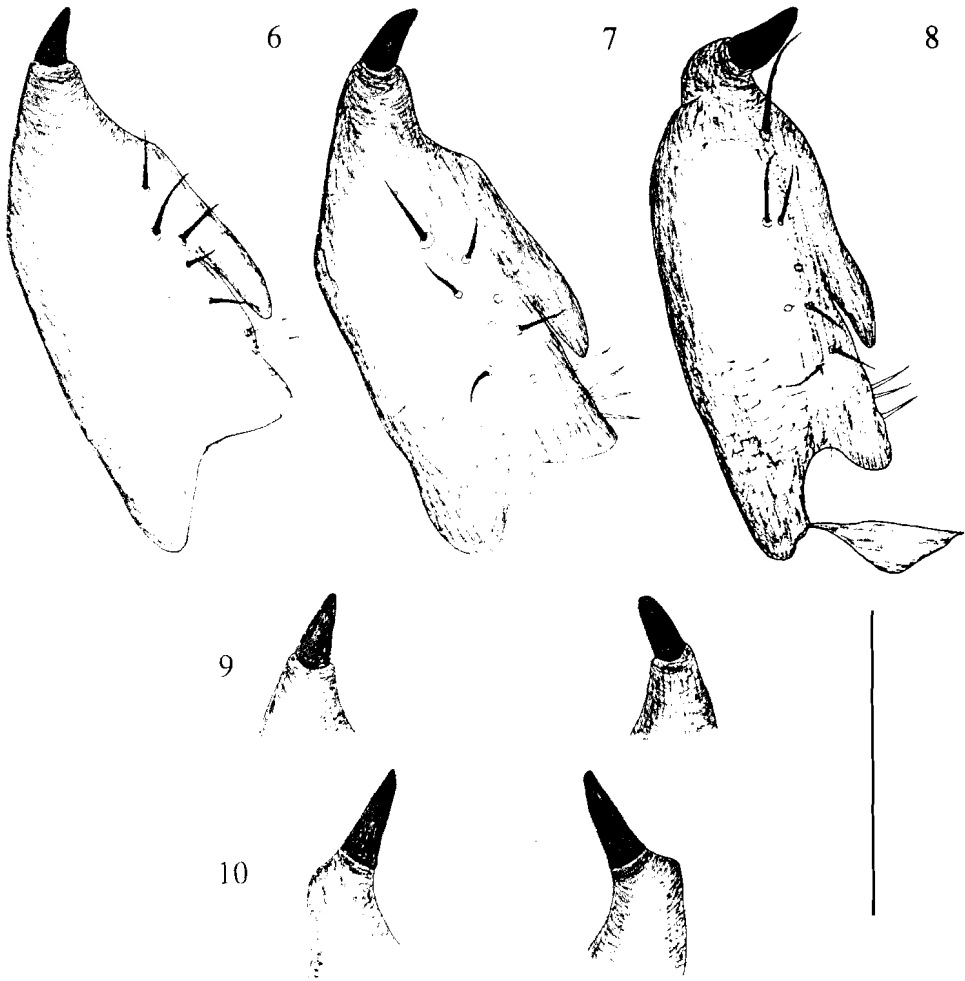
Frons almost all dark, only slightly dark reddish on a small supralunular area (anterior margin of frons yellow or reddish yellow in most specimens of *S. hyalinata*).

Acrostichal microchaetae in 4 rows. No prescutellar acrostichal macrochaeta, chaetotaxy otherwise as in *S. hyalinata*.

Wings clear yellowish, veins yellow, strong black fringe on 1/3 of costal section between radial veins  $R_{2-3}$  and  $R_{4-5}$ . Intra-crossvein section slightly longer than half of the ultimate section (115 : 226), this is usually less than 1/2 in *S. hyalinata* (on a specimen from the Bükk Mts 100 : 208, on one from Csévharaszt 98 : 216).

Legs black with thin microtomentum, only knees as well as mid and hind tarsi yellowish. Male hind tibia with a patch of black apicoventral setulae (as in *S. hyalinata*).

Setae both on abdominal tergites and sternites rather sparse. Longest tergal marginal setae 0.21 mm long only. Tergite 7 not broad (at least sclerotized part much less



Figs 6–10. *Schumannimyia* spp., male genitalia. – 6–8: right surstylus in broadest extension (subventral view): 6: *S. hyalinata* (Meigen), Csévharszt; 7: *S. hyalinata* (Meigen), Bükk Mts; 8: *S. pseudohyalinata* sp. n., holotype; 9–10: apical part of surstyli, in a view perpendicular to the apical part (more or less a ventral view): 9: *S. hyalinata* (Meigen), Bükk Mts; 10: *S. pseudohyalinata* sp. n., holotype. Scale 0.1 mm.

broad than tergite 6) and slightly broader than epandrium. Spiracles very close to the margin of tergites. Sternites rather broad, both sternite 5 and sternite 6 twice broader than long. Sternite 7 partly membraneous.

Epandrium (Fig. 1) medium large, subglobose. Hypandrium with sclerotized medial part between its basal part and base of hypandrial apodeme (Fig. 4). Surstylus (Figs 1, 8, 10) in broadest extension less broad than that of *S. hyalinata* (Figs 6–7), with inclinate apical part, apical tooth longer than that of *S. hyalinata* (cf. Fig. 9). Apical part of gonopods (Figs 4–5) much broader than that of *S. hyalinata* (Figs 2–3), dorsal edge with a distinct tooth medially. Phallus weakly sclerotized, membraneous, phallapodeme moderately long. Female unknown.

Owing to its thick microtomentum on mesonotum, *S. pseudohyalinata* sp. n. keys to *S. pseudovirilis* (Shewell) in Shatalkin's (2000) key; however, also the frons of that

Mongolian species is thickly grey microtomentose, its gena is much broader than first flagellomere, its veins are brown (or dark ochre); arista of *S. pseudovirilis* is micropubescent, while that of the new species is distinctly pilose.

I am convinced that the closest relative of the new species is *S. hyalinata* (Meigen, 1826). The absence of prescutellar acrostichal macrochaetae makes it easily separable. Otherwise only details of male genitalia show distinctive features.

#### AGROMYZIDAE

***Agromyza lucida*** Hendel, 1920 – 1 male: Nógrádszakál, Rárópuszta, tölgyes, aljnövényzet, 2003. május 28.

This is a widespread Holarctic species, which was listed also by Papp & Černý (2001) as a species expected to occur in Hungary. However, this is the first specimen from our country. This specimen was captured in a marshy forest watered by sources. Its genitalia agree well with figs 198–199 in Spencer (1976).

***Aulagromyza anteposita*** (Strobl, 1898) – 2 males: Verőce: Magyarkút, Keskenybükki-p. v., patak mellett, 2003. május 10., 20–22 óra. A little known species new to Hungary.

***Aulagromyza discrepans*** (van der Wulp, 1871) – 1 male: Budapest, Pestszentlőrinc, Péterhalmi-erdő, tölgyes, aljnövényzet, 2003. 05. 01–04.; 1 male: Verőce: Magyarkút, Keskenybükki-p. v., patak mellett, 2003. május 10., 20–22 óra; 1 male: Ipolytarnóc, Borókás-p. mellett, 2003. május 28.

This is a widespread, though not common species, found also in the Czech and in the Slovak Republics. New to Hungary.

***Phytomyza ranunculivora*** Hering, 1932 – 1 male: Nógrádszakál, Rárópuszta, tölgyes, aljnövényzet, 2003. május 27.

This species belongs to those *Phytomyza*, which are not difficult to identify. Genitalia of our specimen fit well to Spencer's (1976) fig. 852. A species new for the Hungarian fauna.

#### MILICHIIDAE

***Paramyia hungarica*** L. Papp, 1993 – 1 male: Duna-Dráva N.P., Órtilos, ártér, 2003. június 17., virágokról.

It must be a very rare species, since this is the second known specimen of this species (cf. Papp 2002).

#### EPHYDRIDAE

***Scatella obsoleta*** Loew, 1861 – 2 males: Duna-Dráva NP: Kölked, Duna-parti iszapról és nedves homokról, 2003. június 18.

It was expected to occur in Hungary since long (Papp 1975, under the name *S. callosicosta*), but these are the first specimens from Hungary.



## SPHAEROCERIDAE

**Trachyopella (Insulomyia) nuda** Roháček & Marshall, 1986 – 1 female: Duna-Dráva N.P., Őrtilos, kavicszátó, 2003. jún. 17., leg. Papp L.

It was described from Canada and the United States (Roháček & Marshall 1986); it seems common in the Nearctic Region. Carles-Tolrá & Báez (2002) recorded it from Andorra, Spain and also from the Canary Islands. The species is new for the Hungarian fauna. Our specimen is damaged: it was intact when I minuten-pinned it, but its head was lost during labelling, etc. To avoid further damage, not only the abdomen, but the specimen itself has been put in a plastic microvial with glycerol as well.

## TRIXOSCELIDIDAE

**Trixoscelis approximata** (Loew, 1865) – 7 males, 1 female: Budapest, Pestszentlőrinc, Péterhalmi-erdő, tölgyes szélén, 2003. 06. 14.; 1 male: *ibid.*, tölgyes, 06. 22.

It was expected to occur in Hungary (Soós 1981, Papp 2001), but the above ones are the first known specimens from our country.

*Acknowledgement* – I am grateful to Dr Bernhard Merz (Muséum d'Histoire naturelle Genève, Suisse) for his advices.

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