

New records of Tipuloidea (Diptera, Insecta) from Hungary

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Abstract – Thirty-two species of crane flies are reported as new for Hungary based on a recent survey and the revision of earlier collected specimens of the Hungarian Natural History Museum, Budapest. The recent survey was carried out in spring and autumn of 2017 in a mature oak-hornbeam forest in the Pilis Mountains (Hungary). Identifications of four other species with questionable previous records are confirmed.

Key words – crane fly, faunistic data, Limoniidae, Pediciidae, Tipulidae, Cylindrotomidae

INTRODUCTION

Tipuloidea or crane flies are a hyperdiverse group of Diptera, with more than 15.500 described species worldwide (OOSTERBROEK 2018). Results of new morphological and molecular studies suggest that Pediciidae is the sister group of the remaining Tipuloidea (Limoniidae, Cylindrotomidae and Tipulidae), and Limoniidae is a paraphyletic group (KANG *et al.* 2017, PETERSEN *et al.* 2010, RIBEIRO 2008, ZHANG *et al.* 2016). At present the new classification of Tipuloidea is not yet established and not adapted to all genera (PETERSEN *et al.* 2010), so we decided to use the traditional division of the group (STARÝ 1992a). All Tipuloidea groups are relatively poorly known, and only a few studies improved the faunistic knowledge of crane flies in Hungary in the last two decades.

The family Limoniidae (short-palped crane flies) is a speciose group, with 764 recognized species-group taxa (species and subspecies) in the Western Palearctic (OOSTERBROEK 2018). A total of 122 species were confirmed to occur

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in Hungary based on voucher material (KOLCSÁR *et al.* 2017, PAPP 2009, STARÝ & PAPP 2001, UJVÁROSI 2004), and the presence of additional 10 species is questionable (STARÝ & PAPP 2001). The family Cylindrotomidae (long-bodied crane flies) is a small group, with 71 described species worldwide. Only two rarely collected species were recorded from Hungary (STARÝ 2001, STARÝ & PAPP 2001). The family Tipulidae (long palped crane flies) is a relatively poorly studied group in Hungary, with 77 species confirmed from Hungary (OOSTERBROEK 2018). The last faunistic records were published by VÁLY (1982). New faunistic records of Pediciidae (hairy-eyed crane flies) were published recently by KOLCSÁR & KERESZTES (2016). The aim of the present paper to improve the faunistic knowledge of Tipuloidea in Hungary.

MATERIALS AND METHODS

The major part of the material was collected in the framework of a forest ecological experiment in which the effects of different forestry treatments on forest site, biodiversity and regeneration are studied (KOVÁCS *et al.* 2018, ELEK *et al.* 2018, BOROS *et al.* 2019, in press). The specimens were collected in Pilis Mountains (Hungary) near the village of Pilisszántó (N 47.67°, E 18.91°, 370–470 m). The study site has a humid continental climate with 9.0–9.5 °C annual mean temperature and 650 mm mean annual precipitation. The studied area is dominated by a managed, 80-year old oak-hornbeam forest dominated by sessile oak (*Quercus petraea* Matt. (Liebl.)) in the upper and hornbeam (*Carpinus betulus* L.) in the lower canopy layer. The other part of the studied material consists of older specimens deposited in the Diptera Collection of Hungarian Natural History Museum (HNHM), Budapest, Hungary. All specimens were identified by L.-P. Kolcsár, and voucher specimens are deposited in the HNHM.

Glossary – Forrás = spring, völgy = valley, nemzeti park (NP) = national park, nyíres környéke = around birch forest, fényre = at light, fényre repült = flew to light, patak = brook, tó = lake, folyó = river, erdő = forest, fölött = above, mellett = next to, talajcsapda = pitfall trap, tájvédelmi körzet (TK) = landscape protected area, természetvédelmi terület (TT) = protected area, erdőszél = forest edge, hegység = mountains, hegy = mount, szikes tóparti növényzet = saline lakeside vegetation, szikes rét = saline grassland, levegőben rajzott = swarming mid-air, ártér = floodplain.

RESULTS

Cylindrotomidae

Cylindrotoma distinctissima distinctissima (Meigen, 1818)

Material examined – **Pest county:** Pest county: Nagykovácsi, Júliamajor, 4.X.1981 (1 male), unknown collector. **Somogy county:** Bőszénfa, Zselic, Ropoly (tó), 29.V.1980 (1 male), leg. Csiby M.

Remarks – A relatively rare species in Central and South Europe, highly associated with wet mountainous habitats (KOLCSÁR *et al.* 2017a). The species was previously reported from Hungary, here we report new faunistic data.

Limoniidae

Achyrolimonia coeiana (Nielsen, 1959)

Material examined – **Baranya county:** Mecseknádasd, Kelet-Mecsek TK, Varasdi-patak fölött és mellett, 28.IV.2002 (1 male), leg. Papp L.

Remarks – It is a very rare and poorly known species, previously reported from Azerbaijan, Croatia, Czechia, Germany, Montenegro, Poland and Slovakia (OOSTERBROEK 2018). Immature stages of the species are unknown, but the known larvae of other *Achyrolimonia* Alexander, 1965 are considered to be polyphagous and dwell in decaying wood infected by xylotrophic fungi or inhabiting sporocarps of various fungi (KRIVOSHEINA 2011). *A. coeiana* is reported as a saproxylic species of local ecological significance in Slovakia (STARÝ 2009). First record from Hungary.

Achyrolimonia neonebulosa (Alexander, 1924)

Material examined – **Pest county:** Pilisszántó, Pilis, 385 m, 47.676992° N, 18.910983° E, 30.V.2017–6.VI.2017 (1 male), malaise trap, leg. Soltész Z.; Páty, 284 m, 47.51037° N, 18.85545° E, 21–27.VIII.2018 (1 male), malaise trap, leg. Vas Z.

Remarks – A widespread uncommon species, with larvae living in decaying wood (KRIVOSHEINA 2009). One of the Hungarian specimens was collected in oak-hornbeam forest. First records from Hungary.

Antocha (Antocha) vitripennis (Meigen, 1830)

Material examined – **Pest county:** Csobánka, Pilis, 170 m, 47.653205° N, 18.973731° E, 1.V.2018 (1 male), leg. Kolcsár L.-P.

Remarks – A widespread and common species associated with brooks and rivers, with aquatic larvae (BOARDMAN 2007). The Hungarian specimen were collected around a small brook. First record from Hungary.

Austrolimnophila (Archilimnophila) unica (Osten Sacken, 1869)

Material examined – **Pest county:** Nagybörzsöny, Börzsöny Mts., Börzsöny Valley, 262 m, 47.942734° N, 18.843008° E, 1.VI.2016 (1 male), leg. Kolcsár L.-P. & Török E.

Remarks – A Holarctic species associated with woody habitats; larvae live in decomposing trees (KRIVOSHEINA 2009). The Hungarian specimen was collected around fallen hornbeams. According to the first author's personal experience the species is relatively common in humid hornbeams-beech forests in Romania and Bulgaria. First record from Hungary.

Cheilotrichia (Cheilotrichia) imbuta (Meigen, 1818)

Material examined – **Borsod-Abaúj-Zemplén county**: Nagyhuta, Zempléni TK, Rostalló, levegőben rajzott, 26.VI.2007 (10 males), leg. Szappanos A.

Remarks – It is a widespread, relatively common Palaearctic species, known from several European countries (OOSTERBROEK 2018). The males often swarm above the vegetation in windless days, often along with *Erioptera* Meigen, 1803 species. The Hungarian specimens were also collected during swarming.

Crypteria (Crypteria) limnophiloides Bergroth, 1913

Material examined – **Pest county**: Pilisszántó, Pilis: 450 m, 47.671225° N, 18.911214° E (1 male, 4 females); 407 m, 47.673949° N, 18.913060° E (2 males, 7 females); 438 m, 47.674159° N, 18.906073° E (7 males, 7 females); 429 m, 47.675605° N, 18.903126° E (2 males, 5 females); 380 m, 47.675743° N, 18.913367° E (4 males, 2 females); 385 m, 47.676992° N, 18.910983° E (5 males, 8 females), malaise trap, 29.IX-05.X.2017, leg. Soltész Z.

Remarks – It is a rare species with poorly known biology. It is most probably associated with wet, woody habitats (BOARDMAN 2007). The Hungarian specimens were collected in autumn in oak-hornbeam forest (see materials and methods). First records from Hungary.

Dicranomyia (Dicranomyia) longipennis (Schummel, 1829)

Material examined – **Somogy county**: Zamárdi, Töreki-láp, 10.XI.1953 (1 male), leg. Mihályi F.

Remarks – It is a widespread species, with highly peculiar dorso-ventrally flattened habitus. The species is reported from rich fens, marshes (SALMELA 2008, STARÝ 2014) and from slow sand filters in Japan (HIRABAYASHI *et al.* 2004). The Hungarian specimen was also collected from marshy habitat. First record from Hungary.

Dicranomyia (Dicranomyia) lutea (Meigen, 1804)

Material examined – **Pest county**: Pilisszántó, Pilis: 450 m, 47.671225° N, 18.911214° E, (6 males, 2 females); 407 m, 47.673949° N, 18.913060° E (10

males, 2 females); 438 m, 47.674159° N 18.906073° E (5 males, 7 females); 429 m, 47.675605° N, 18.903126° E (2 males, 3 females); 380 m, 47.675743° N, 18.913367° E (5 males, 3 females); 385 m, 47.676992° N, 18.910983° E (2 males, 3 females), malaise trap, 30.V–6.VI.2017, leg. Soltész Z.

Remarks – The species was recently reinstated as a valid species (STARÝ & STUBBS 2015). It is herewith reported for the first time from Hungary from oak-hornbeam forest habitat (see materials and methods).

Dicranomyia (Dicranomyia) sera (Walker, 1848)

Material examined – **Bács-Kiskun county**: Fülöpháza, Kiskunsági NP, Szappanos-szék, 6.VI.1979 (2 males), leg. Papp L.; Kerekegyháza, Kiskunsági NP, Kondor-tó, 28.IX.1979 (3 males), leg. Szekrényesi; Fülöpháza, Kiskunsági NP, szikes tóparti növényzet, 26.VII.1978 (9 males), 26.IX.1978 (1 male), leg. Papp L.; Fülöpháza, Kiskunsági NP, szikes rét, 7.VI.1978 (1 male), leg. Mihályi F.

Remarks – It is a widely distributed species associated with saline habitats. It is mostly found in coastal saltmarshes, but isolated populations are also known from inland saline habitats (STUBBS 2008, DEVYATKOV 2013). The Hungarian specimens were also collected from saline habitats. First records from Hungary.

Dicranomyia (Glochina) kinensis (Alexander, 1936)

Material examined – **Pest county**: Csévharaszt, Csévharaszt TT, nyíres környéke, 25.VI.2002 (1 male), leg. Draskovits Á.; Börzsöny hegység, Verőce, Magyarút, fényre repült, 20.VIII.1972 (1 male), leg. Bajza-Papp.

Remarks – The species was described from China (Gansu province) and later also reported from some European countries (Austria, Czechia, Germany, Italy, Netherlands, Slovakia, Switzerland) and from Georgia, Mongolia and Russia (Primorskiy kray) (OOSTERBROEK 2018). Immature stages and the biology of the species are unknown. One Hungarian specimen was collected near a birch forest and another was collected by light trap. First records from Hungary.

Dicranomyia (Glochina) transilvanica Lackschewitz, 1928

Material examined – **Pest county**: Pilisszántó, Pilis: 438 m, 47.674159° N, 18.906073° E (1 male, 2 females); 429 m, 47.675605° N 18.903126° E (1 male); 380 m, 47.675743° N 18.913367° E (1 male); 385 m, 47.676992° N 18.910983° E (1 male); malaise trap, 30.V–06.VI.2017, leg. Soltész Z.; Budapest, Gugger-hegy, erdőszél, 9.VI.1984, leg. Geleji, Vály.

Remarks – It is a rare species, biology of the species mostly unknown. Czech and Slovakian specimens were collected in rocky habitats where rocks occurred

(OOSTERBROEK 2018, based on Jaroslav Starý per. comm.). First records from Hungary.

Erioptera (Erioptera) flavata (Westhoff, 1882)

Material examined – **Borsod-Abaúj-Zemplén county**: Nagyhuta, Zemplén, Kőkapu, erdőszél, 23.VI.1960 (1 male), leg. Zsirkó. **Heves county**: Recsk, Mátra, 9.VIII.1974 (1 male), leg. Tóth S.

Remarks – A rather widespread and common species in boggy and marshy habitats (KOLCSÁR *et al.* 2017b, SALMELA 2012). The presence of the species in Hungary was questionable until now (STARÝ & PAPP 2001). First voucher specimens from Hungary.

Erioptera (Erioptera) limbata Loew, 1873

Material examined – **Pest county**: Nagybörzsöny, Börzsöny Mts., UV lamp, 217 m, 47.934748° N, 18.833689° E, 31.V.2016 (1 male), leg. Kolcsár L.-P. & Török E.

Remarks – The species has semi-aquatic larvae and prefers sandy riverine sediments (PODENIENE 2002). First record from Hungary.

Erioptera (Erioptera) nielseni de Meijere, 1921

Material examined – **Somogy county**: Balatonszabadi, szúnyog program [mosquito project], leg. ?Vojnits A.

Remarks – It is a relatively common species in Northern and Western Europe, but in Central Europe it was reported only from Austria and Czechia (OOSTERBROEK 2018). The exact collection date is unknown but most probably is 1978–79. First record from Hungary.

Erioptera (Erioptera) verralli Edwards, 1921

Material examined – **Baranya county**: Mecseknádasd, Kelet-Mecsek TK, Varasdi-patak fölött és mellett, 28.IV.2002 (1 male), leg. Papp L.

Remarks – The species seems highly associated with shaded streams in forests (GODFREY 1999, BOARDMAN 2007, KOLCSÁR *et al.* 2017b). The first Hungarian specimen was also collected along a stream.

Gonomyia (Gonomyia) recta Tonnoir, 1920

Material examined – **Pest county**: Kemence, Börzsöny Mts., Fekete Valley, 338 m, 47.973936° N, 18.895434° E, 31.V–1.VI.2016 (7 males), leg. Kolcsár L.-P. & Török E.

Remarks – The species is associated with and used/regarded as an indicator of calcareous soil or bedrock (SALMELA 2010). In contrast, the Hungarian specimens were collected around a small stream of andesite bedrock. First record from Hungary.

Hoplolabis (Parilisia) areolata (Siebke, 1872)

Material examined – **Borsod-Abaúj-Zemplén county**: Bogács, UV fényre, 29.VI.2009 (3 males), leg. Papp L.

Remarks – A relatively common, Western Palaearctic species. The only Hungarian specimen was collected with UV lamp.

Hoplolabis (Parilisia) pontica (Savchenko, 1984)

Material examined – **Pest county**: Szokolya, Les-völgye, patakpart, 25.VII.1999 (1 male), 24.IV.2000 (1 male), leg. Papp L.

Remarks – It is a rare species, previously reported from Czechia, Moldova, Poland, Romania, Slovakia, Turkey and Ukraine (OOSTERBROEK 2018). Its biology is largely unknown. Romanian specimens were collected around small sandy brooks (KOLCSÁR *et al.* 2013). The Hungarian specimens were also found in similar habitat. First record from Hungary.

Hoplolabis (Parilisia) yezoana (Alexander, 1924)

Material examined – **Borsod-Abaúj-Zemplén county**: Bogács, UV fényre, 29.VI.2009 (3 males), leg. Papp L.

Remarks – Common species. First record from Hungary.

Limonia trivittata (Schummel, 1829)

Material examined – **Pest county**: Kemence, Börzsöny Mts, Fekete Valley, 338 m, 47.973936° N, 18.895434° E, 31.V.2016 (3 males), leg. Kolcsár L.-P. & Török E.

Remarks – Common species. First record from Hungary.

Molophilus (Molophilus) griseus (Meigen, 1804)

Material examined – **Borsod-Abaúj-Zemplén county**: Aggtelek, Tornai-karszt, 28.IX.1956 (1 male), leg. Zilahi-Sebess G. **Heves county**: Gyöngyös, Mátrafüred, Mátra, Nagy-Sás-tó, 11.X.2007 (1 male), leg. Papp L., Földvári M., Nyárády K.

Remarks – It is a widespread species in the Western Palaearctic, found in various habitats, but mostly around running waters. First records from Hungary.

Molophilus (Molophilus) lackschewitzianus lackschewitzianus Alexander, 1953

Material examined – **Borsod-Abaúj-Zemplén county:** Abaújszántó, Sátorhegy, István-kút, erdő, 8–14.VI.1955 (1 male), leg. Zilahi-Sebess G.

Remarks – It is a rarely collected species. The nominotypical subspecies prefers calcareous clay in Great Britain and Ireland (BOARDMAN 2007, 2012, ASHE *et al.* 2007). Although the exact collection habitat in Hungary is unknown, it should be noted that the Zemplén Mountains have a siliceous volcanic bedrock. First record from Hungary.

Molophilus (Molophilus) niger Goetghebuer, 1920

Material examined – **Veszprém county:** Bakonybél, Gerence-völgy, 11.V.1976 (2 males, 5 females), leg. Tóth S. **Pest county:** Verőce, Magyarkút, Keskenybükkipatak, 1.V.2010 (3 males); 30.04.2011 (1 male), leg. Papp L.; Szokolya, Duna-Ipoly NP, Les völgye, patak mellett és fölött, 30.IV.2011 (1 male), leg. Papp L.

Remarks – An early spring species, found around brooks. First records from Hungary.

Molophilus (Molophilus) repentinus Starý, 1971

Material examined – **Nógrád county:** Diósjenő, Kemence patak, 2.V.1999 (1 male), leg. Papp L.

Remarks – Spring species in Central Europe, rarely collected. The species probably prefers mountain habitats. First record from Hungary.

Molophilus (Molophilus) savtshenkoi Starý, 1972

Material examined – **Borsod-Abaúj-Zemplén county:** Mályinka, Bükki NP, Moldva-völgy, patak fölött és mellett, 13.V.2005 (1 male), leg. Földváry M. & Papp L.; Miskolc, Sebes-víz, 21.V.1998 (1 male), leg. Papp L.

Remarks – It is a rare mountainous species, known only from Czechia, Poland, Romania, Slovakia and Ukraine (OOSTERBROEK 2018). The Hungarian specimens were collected in the Bükk Mts. First records from Hungary.

Ormosia (Ormosia) albitibia Edwards, 1921

Material examined – **Heves county:** Mátraszentimre, Gazsi-kanyar, Narádpatak, 827 m, 47.916944° N, 19.885833° E, 25.VIII.2011 (1 male), Kovács T.; Padársasvár, Áldozó-patak, 727 m, 47.921250° N, 19.935833° E, 25.VIII.2011 (1 male), leg. Kovács T.; Mátraszentimre, Mátra hegység, Galya(tető), 13.VIII.1978 (1 male), leg. Mihályi F.; Gyöngyös, Mátraháza, Mátra hegység, 19.VIII.1978 (1 male), leg. Mihályi F.

Remarks – An uncommon species. The first author's experience is that it prefers hilly and mountainous streams in Romania, but it was also collected around small temporary standing waters in spruce forests. The Hungarian specimens were also collected from higher altitudes, mostly around brooks. First records from Hungary.

Ormosia (Ormosia) depilata Edwards, 1938

Material examined – **Vas county:** Kőszeg, Kőszegi TK, Hétforrás, patak fölött, 11.V.2006 (1 male), leg. Papp L. & Földvári M.

Remarks – It is a relatively common species, but absent from Southern Europe (OOSTERBROEK 2018). As other *Ormosia* species, it is collected along brooks. First record from Hungary.

Ormosia (Ormosia) loxia Starý, 1983

Material examined – **Baranya county:** Mecseknádasd, Kelet-Mecsek TK, Varasdi-patak fölött és mellett, 28.IV.2002 (1 male), leg. Papp L. **Heves county:** Gyöngyös, Mátraháza, Honvéd-üdülő, Hidas-patak, 680 m, 7.V.2008 (1 male) Papp L. & Földvári M. **Nógrád county:** Szuha, Mátraalmás, Martalóc-völgy, patak fölött, 700 m, 5.V.2005 (1 male), leg. Murányi D. **Vas county:** Kőszeg, Kőszegi TK, Hármaspatak, fölött és mellett, 11.V.2006 (4 males), leg. Papp L. & Földvári M.

Remarks – It is a rare species, red listed in Finland (PENTTINEN *et al.* 2010). The species was reported from small sandy brooks (SALMELA & VARTIJA 2007). The species seems to be relatively common in mountainous and hilly areas in Hungary. First records from Hungary.

Rhipidia (Rhipidia) uniseriata uniseriata Schiner, 1864

Material examined – **Hajdú-Bihar county:** Újszentmargita, Hortobágyi NP, 16.VII.1976 (1 male), talajcsapda, unknown collector. **Pest county:** Pilisszántó, Pilis: 450 m, 47.671225° N, 18.911214° E, (2 males, 10 females); 407 m, 47.673949° N, 18.913060° E (1 male, 9 females); 438 m, 47.674159° N, 18.906073° E (9 females); 429 m, 47.675605° N, 18.903126° E (1 males, 6 females); 380 m, 47.675743° N, 18.913367° E (5 females); 385 m, 47.676992° N, 18.910983° E (4 females); malaise trap, 30.V–06.VI.2017, leg. Soltész Z.; Páty, 284 m, 47.51037° N, 18.85545° E, 13–21.VIII.2018 (1 female), 30.VII–5.VIII.2018 (1 female), malaise trap, leg. Vas Z.. Csomád, forest, 4.VI.1974 (1 female), leg. Mihályi F.

Remarks – Relatively common species, associated with deciduous trees. The larvae are saproxylic (KRIVOSHEINA 2009, SALMELA 2012). First voucher specimens from Hungary.

Symplecta (Psiloconopa) bizarrea (Starý, 1992)

Material examined – **Szabolcs-Szatmár-Bereg county**: Kisar, Szatmár-Beregi TK, Tisza ártere, 12.VII.2001 (3 males), leg. Papp L.

Remarks – A very rare and interesting species. The type specimens were collected on the shore of the Tisza River in Slovakia (STARÝ 1992b). Recently found in East Kazakhstan, erroneously described as *Erioptera longipennis* Devyatkov, 2014 (DEVYATKOV 2014). The Hungarian specimens were also collected in the floodplain of the Tisza river, about 50 km from the type locality.

Symplecta (Symplecta) grata Loew, 1873

Material examined – **Csongrád county**: Hódmezővásárhely, 24.IV.1964 (1 male), fénycsapda, unknown collector. **Bács-Kiskun county**: Fülöpháza, Kiskunság NP, Hattyúszék, 27.IV.1979 (1 male, 1 female), leg. Papp L.

Remarks – It is a rather widespread, but rare species in the Holarctic region. From Europe it is hitherto known from Austria, Czechia, Italy (Sicily), Spain (Balearic Island), Romania, Slovakia, Spain (Almeria) and Ukraine (OOSTERBROEK 2018). *S. grata* was reported from saline habitats (STARÝ 2014). Here we confirm its presence in Hungary.

Tasiocera (Dasymolophilus) fuscescens (Lackschewitz, 1940)

Material examined – **Pest county**: Nagybörzsöny, Börzsöny Mts., Hosszú Valley, 287 m, 7.929300° N, 18.843680° E, 30.V.2016 (1 male), leg. Kolcsár L.-P.

Remarks – Small sized species, associated with wet/moist woodlands (BOARDMAN 2007). First record from Hungary.

Pediidae

Tricyphona (Tricyphona) schummeli Edwards, 1921

Material examined – **Heves county**: Mátraszentimre, 4.VI.1984 (1 male); 5–20.VI.1982 (3 males), leg. Mihályi F.

Remarks – It is a mountainous species in Central Europe. First record from Hungary.

Tipulidae

Tipula (Lunatipula) alpina Loew, 1873

Material examined – **Pest county**: Pilisszántó, Pilis, 429 m, 47.675605° N, 18.903126° E, 30.V–6.VI.2017 (1 male), malaise trap, leg. Soltész Z.

Remarks – The biology of this species is largely unknown, but it seems to be associated with wet, semi-dry deciduous forests (OOSTERBROEK 2007, 2009). The specimen was collected in oak-hornbeam forest (see materials and methods) and represents the first valid record of the species from Hungary.

Tipula (Lunatipula) magnicauda Strobl, 1895

Material examined – **Pest county:** Pilisszántó, Pilis, 450 m, 47.671225° N, 18.911214° E, 30.V–6.VI.2017 (3 males), malaise trap, leg. Soltész Z.

Remarks – It is a rare Central European species (OOSTERBROEK 2018). Hungarian specimens were collected in oak-hornbeam forest (see materials and methods). First record from Hungary.

Tipula (Savtshenkia) serrulifera Alexander, 1942

Material examined – **Pest county:** Pilisszántó, Pilis, 438 m, 47.674159° N, 18.906073° E, 29.IX–5.X.2017 (1 male), malaise trap, leg. Soltész Z.

Remarks – Relatively widely distributed species in the Western Palaearctic (OOSTERBROEK 2018), but rarely collected. Adults swarm in autumn. The specimens were collected in oak-hornbeam forest (see materials and methods). First record from Hungary.

DISCUSSION

The Hungarian Tipuloidea fauna is rather poor considering the neighbouring countries, only half of the species are known (PAPP & FÖLDVÁRI 2007). With our results included, presence of 2 Cylindrotomidae, 156 Limoniidae, 15 Pediciidae, and 80 Tipulidae species have been proved to occur in Hungary.

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