

Tachinid Fauna of Serbia and Montenegro Updated with New Findings (Diptera: Tachinidae)

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ABSTRACT

During 2012-2016 period, Tachinids were reared in Serbia and Montenegro. Nineteen species were identified. The genus *Buquetia* and five species are recorded for the first time in Serbia. A checklist based on literature data and internet sources is given here. In total, there are 295 tachinid species known from the territory of Serbia and Montenegro.

Key words: Tachinidae, tachinid flies, checklist, Serbia, Montenegro.

INTRODUCTION

The family Tachinidae is one of the most diverse families of all flies (Diptera). Currently there are about 10000 species from about 1520 genera worldwide (Irwin *et al.*, 2003). The family is usually divided into four subfamilies: Exoristinae, Dexiinae, Phasiinae and Tachininae (Herting and Dely-Draskovits, 1993). All tachinids are almost exclusive parasitoids of other insects, with some exceptions which parasitize centipedes, scorpions and spiders (Vincent, 1985; Williams *et al.*, 1990). Most tachinid species parasitize Lepidoptera caterpillars, of which a large number represent important pests in crop fields and food storages (O'Hara, 2008). The investigation of tachinids as biological control agents dates from the beginning of the 20th century when *Compsilura concinnata* (Meigen, 1824) was used to control the gypsy moth *Lymantria dispar* (Linnaeus, 1758) in USA (De Bach and Rosen, 1991). Afterwards, tachinids were used in many other biological control programs with more or less success (Alam *et al.*, 1971; Embree, 1971; Ferrer, 2001). Knowing tachinids of some specific region is a premise for further research and application. With 877 registered species, the European tachinid fauna is relatively well known (Hubenov, 1992; Tschorsnig and Herting, 1994; Andersen, 1996) supplemented by Fauna Europaea Internet Database (Tschorsnig, 2013). According to the same source, Fauna Europaea, there are 242 species listed for the territories of Serbia and Montenegro. The earliest work on tachinids in Serbia begun in 1900s (Strobl, 1902), later Baranov (1926a, 1926b, 1927b, 1929a) the greatest contributions were provided by Sisojević (1953a, 1953b, 1955, 1975) Sisojević and Čepelák (1983, 1987, 1998a, 1998b, 1998c) and Sisojević *et al.* (1991). The biggest contribution on the knowledge of the Serbian tachinid fauna is revealed Hubenov (2008a, 2008b) reporting 288 species in total. The latest work on the diversity of tachinids for the territories of Serbia and Montenegro was provided by Stanković *et al.* (2014), including two more species as new for the investigated territories.

Since the literature and current databases, such as Fauna Europaea (Tschorsnig, 2013), do not comprise the full scope of the tachinid fauna in Serbia and Montenegro, our main task was to update the checklists of this group. Additionally, we report some data of the reared species.

MATERIAL AND METHODS

The tachinid specimens were reared during the period 2012-2016. Different instars of caterpillars were collected with the plant material and then put into plastic boxes which were covered by muslin cloth to enable sufficient ventilation. The material was kept under laboratory conditions until the emergence of the flies. All emerged adults were preserved in vials with 96% ethanol. The tachinid flies were identified by the last co-author. Remarks on the tachinid/host couples are based on Tschorsnig (2017). Most of the localities originate from the mountain areas in Serbia: Kopaonik (1700 m a.s.l.), Radan (800 m a.s.l.), Tara (580 m a.s.l.), Vlasina plateau (1250 m a.s.l.); Zlatibor (1045 m a.s.l.) and Montenegro: Durmitor (2000 m a.s.l.) and Visitor (950 m a.s.l.). The material is stored at the Department of Biology and Ecology, Faculty of

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Science and Mathematics, University of Niš, Serbia. The breeders and collectors are Saša Stanković (SS) and Vladimir Žikić (VŽ), and to a minor extent Boženka Hric (BH), Marijana Ilić Milošević (MIM), and Mihailo Vujić (MV). Besides the original data, this work also includes all available literature data from the articles listed in the references.

Subfamilies and species are alphabetically arranged. Species new to the investigated territories are marked with one asterisk (*).

RESULTS

A list of reared species with their hosts is given below. In total 240 tachinid specimens were reared from more than 500 caterpillars of Lepidoptera which we collected during the investigation period of (2012-2016).

List of reared species

Subfamily Dexiinae

**Thelaira solivaga* (Harris, 1780)

Material examined: Serbia, Vrčin, 150 m, 07.02.2015, 1♀, leg. MV, from *Phragmatobia fuliginosa*, Linnaeus (Noctuidae, Arctiinae).

Remark: A parasitoid of Arctiinae, often reared from *P. fuliginosa* (Tschorsnig and Herting, 1994; Tschorsnig, 2017).

Voria ruralis (Fallén, 1810)

Material examined: Serbia, Stara Pazova, 80 m, 12.03.2014, 2♀♀, leg. BH; Serbia, Vrčin, 150 m, 26.03.2015, 1♀, leg. MV, from *Autographa gamma* Linnaeus (Noctuidae).

Remark: A common parasitoid of Noctuidae-Plusiinae, with *A. gamma* as a main host (Tschorsnig and Herting, 1994; Tschorsnig, 2017).

Subfamily Exoristinae

Bessa parallela (Meigen, 1824)

Material examined: Serbia, Niš, Niška banja, 300 m, 24.06.2016, 1♂, leg. VŽ, from *Yponomeuta cagnarella* Hübner (Yponomeutidae). Serbia, Radan mt., 800 m, 12.06.2016, 1♀, leg. VŽ.

Host: *Yponomeuta malinellus* Zeller.

Remark: Mostly a parasitoid of "Microlepidoptera". Commonly reared from both mentioned hosts (Tschorsnig and Herting, 1994; Tschorsnig, 2017).

**Buquetia musca* Robineau-Desvoidy, 1847

Material examined: Serbia, Sićevačka klisura (gorge), 230 m, 17.07.2013, 3♂♂, 2♀♀, leg. SS, from *Papilio machaon* Linnaeus (Papilionidae).

Remark: Specific tachinid of this host, commonly reared (Tschorsnig and Herting, 1994; Tschorsnig, 2017).

***Carcelia gnava* (Meigen, 1824)**

Material examined: Montenegro, Visitor, 950 m, 11.07.2013, 1♂, leg. VŽ, from *Malacosoma neustria* Linnaeus (Lasiocampidae).

Remark: *Malacosoma neustria* is a common host of *Carcelia gnava* which mainly parasitizes Lasiocampidae and Noctuidae-Lymantriinae (Tschorsnig and Herting, 1994; Tschorsnig, 2017).

***Carcelia lucorum* (Meigen, 1824)**

Material examined: Serbia, Vlasina Lake, 1250 m, 22.05.2016, 1♂, 1♀, leg. VŽ, from *Melitaea arduinna* Esper (Nymphalidae).

Remark: *Melitaea arduinna* is an atypical host for the common arctiid parasitoid *Carcelia lucorum*. An indication that it is not a usual host might be the dwarf-like body length (5 mm) of both tachinid specimens. Up to the present, there were no confirmed records of nymphalid hosts for the large genus *Carcelia* (Tschorsnig and Herting, 1994; Tschorsnig, 2017).

***Ceromasia rubrifrons* (Macquart, 1834)**

Material examined: Serbia, Sopot, Guberevac, 230 m, 24.05.2014, 1♂, 1♀, leg. BH, from *Aporia crataegi* Linnaeus pupa (Pieridae).

Remark: The host/parasitoid couple was already recorded by Stanković *et al.* (2014). This is another record from the year 2014.

***Chetogena filipalpis* Rondani, 1859**

Material examined: Serbia, Tara mt., 580 m, 23.06.2016, 1♂, leg. VŽ, from *Megalophanes viciella* Denis and Schiffermüller (Psychidae).

Remark: *Chetogena filipalpis* is a specific parasitoid of Psychidae. The host *Megalophanes viciella* was already recorded by Herting (1960).

***Epicamponera succincta* (Meigen, 1824)**

Material examined: Serbia, Vrčin, 150 m, 04.02.2015, 1♀, leg. MV, from *Pieris rapae* Linnaeus pupa (Pieridae).

Remark: Common parasitoid of Pieridae, often reared from *Pieris rapae* (Tschorsnig and Herting, 1994; Tschorsnig, 2017).

****Erycia festinans* (Meigen, 1824)**

Material examined: Serbia, Vlasina Lake, 1250 m, 05.06.2014, 1♀, leg. VŽ, from *Melitaea phoebe* Denis and Schiffermüller pupa (Nymphalidae).

Remark: Specific parasitoid of the nymphalid tribe Melitaeini. The host *Melitaea phoebe* became already known from Hungary by T. Szentiványi two years ago (tachinid identified after photos by the last author) (Tschorsnig and Herting, 1994; Tschorsnig, 2017).

***Eurysthaea scutellaris* (Robineau-Desvoidy, 1848)**

Material examined: Serbia, Sićevačka klisura (gorge), 230 m, 15.05.2013, 1♀, leg. SS, from indet. Tortricidae (on *Populus tremula*). Serbia, Niš, Niška banja, 300 m, 24.06.2016, 2♂♂, 2♀♀, leg. VŽ,

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from *Yponomeuta cagnagella* (Hübner) (Yponomeutidae). Serbia, Radan mt., 800 m, 06.06.2015 and 12.06.2016, 57♂♂, 63♀♀, leg. VŽ, from *Yponomeuta malinellus* Zeller. Serbia, Radan mt., 800 m, 06.06.2015, 11♂♂, 14♀♀, leg. VŽ, from *Yponomeuta padella* (Linnaeus). Serbia, Radan mt., 800 m, 06.06.2015. 10♂♂, 18♀♀, leg. VŽ, from *Yponomeuta* sp. (on *Malus domestica*).

Remark: Common parasitoid of Yponomeutidae and other "Microlepidoptera". Often reared from the recorded hosts (Tschorsnig and Herting, 1994; Tschorsnig, 2017).

****Exorista deligata* Pandellé, 1896**

Material examined: Serbia, Zlatibor mt, Čavlovac, 1045 m, 27.06.2015, 1♂, 1♀, leg. MIM, from indet. Psychidae.

Remark: A rare species which is known as reared from several Psychidae (Tschorsnig and Herting, 1994; Tschorsnig, 2017).

***Pales pavid* (Meigen, 1824)**

Material examined: Serbia, Tara, Derвента, 580 m, 25.06.2015, 1♂, 1♀, leg. VŽ, from *Cucullia* sp. (Noctuidae).

Remark: Common unspecific parasitoid of many Lepidoptera. Occasionally reared from *Cucullia* species (Tschorsnig and Herting, 1994; Tschorsnig, 2017).

***Phryxe hirta* (Bigot, 1880)**

Material examined: Serbia, Vlasina Lake, 1250 m, 05.06.2014, 1♀, leg. VŽ; 06.06.2014, 1♀ leg. SS, from *Heterogynis sondereggeri* De Freina (Heterogynidae).

Remark: Already recorded by Stanković *et al.* (2014) from the same host and locality (reared 2013).

***Phryxe nemea* (Meigen, 1824)**

Material examined: Serbia, Vlasina Lake, 1250 m, 28.06.2012, 1♂, leg. VŽ, from *Zygaena filipendulae* Linnaeus (Zygaenidae).

Remark: Common parasitoid of many Lepidoptera. The host/parasitoid couple *Phryxe nemea ex Zygaena filipendulae* was already recorded by Audcent (1942).

***Phryxe vulgaris* (Fallén, 1810)**

Material examined: Serbia, Niš, Pantelej, 240 m, 21.04.2014, 1♀, leg. VŽ, from *Issoria lathonia* Linnaeus (Nymphalidae). Serbia, Kopaonik mt., 1700 m, 12.06.2016, 1♀, leg. VŽ, from *Zygaena lonicerae* Scheven (Zygaenidae).

Remark: *Phryxe vulgaris* is a common parasitoid of many Lepidoptera. The hosts *Issoria lathonia* and *Zygaena lonicerae* were already recorded by Brauer and Bergenstamm (1894) (revised by Herting (1960)) and Edelsten (1933) respectively.

***Sturmia bella* (Meigen, 1824)**

Material examined: Montenegro, Durmitor mt., Ledena pećina, 2000 m, 16.07.2015, 9♂♂, 14♀♀, leg. SS, from *Aglais urticae* Linnaeus (Nymphalidae). Serbia, Vranjski Priboj, 300 m, 10.06.2014, 5♂♂, 4♀♀, leg. VŽ, from *Inachis io* Linnaeus (Nymphalidae).

Remark: *Sturmia bella* is a common parasitoid of Nymphalidae. The recorded two species are well-known as usual hosts (Tschorsnig and Herting, 1994; Tschorsnig, 2017).

**Zenillia dolosa* (Meigen, 1824)

Material examined: Serbia, Sićevačka klisura (gorge), 230 m, 24.05.2015, 1♀, leg. SS, from *Pleuroptya ruralis* Scopoli (syn. *Patania ruralis* (Scopoli)) pupa (Crambidae).

Remark: Common parasitoid of mainly "Microlepidoptera". *Pleuroptya ruralis* is a well-known host (Tschorsnig and Herting, 1994; Tschorsnig, 2017).

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Tachina sp. indet.

Material examined: Serbia, Radan mt., 800 m, 06.06.2015, 1♀, leg. VŽ, from *Cucullia verbasci* Linnaeus (Noctuidae).

Remark: A species of the unrevised *Tachina magnicornis* agg. with the abdomen without dark median stripe.

Besides the list of reared tachinid species, we gathered the literature data and presented them as a checklist (Table 1). As the main data source, we used the Fauna Europaea Internet Database (Tschorsnig, 2013). However, the species list of the mentioned database should be updated with the 48 species which were additionally recorded in Serbia and Montenegro faunas.

DISCUSSION

The majority of the reared species belongs to the subfamily Exoristinae (16) while the subfamilies Dexinae and Tachininae are represented with two and one species respectively. This is not surprising, because Exoristinae includes the most often reared tachinid species. From this subfamily, the genus *Phryxe* is the most commonly reared, three species are recorded. In this investigation, there were no species from the subfamily Phasiinae, which is due to the fact that Heteroptera are only reared by breeders which are specialised on this insect order. The ermine moths from the genus *Yponomeuta* with its two identified species, *Y. cagnagella* and *Y. malinellus* served as hosts for two tachinids, *Eurystaea scutellaris* and *Bessa parallela*, thus making *Yponomeuta* species in our investigation the most common hosts from which parasitoids were reared. Moreover, *Eurystaea scutellaris* was the most abundant species with 178 individuals reared from both ermine moths. Out of the five newly reported species for the investigated territory, four species are usually relatively common (*Thelaira solivaga*, *Buquetia musca*, *Erycia festinans* and *Zenillia dolosa*). It is interesting that *Buquetia musca* has not been reported previously for the Serbian and Montenegrin fauna by any author, having in mind that the species is often reared in other European countries (Tschorsnig, 2017).

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Table 1. Literature records and findings of tachinid species new for Serbia and Montenegro. The ratio represents the number of recorded species for the investigated territory in relation to the number of species in whole Europe (according to Fauna Europaea). (*) Ratio between species found in Serbia and Montenegro/species found in Europe.

SUBFAMILY	GENUS	SPECIES	*SPECIES EXPLORATION
Dexiinae	<i>Athrycia</i>	<i>A. impressa</i> (van der Wulp, 1869), <i>A. trepida</i> (Meigen, 1824)	2/3
	<i>Billaea</i>	<i>B. adelpha</i> (Loew, 1873), <i>B. irrorata</i> (Meigen, 1826), <i>B. maritima</i> (Schiner, 1862), <i>B. pectinata</i> (Meigen, 1826), <i>B. triangulifera</i> (Zetterstedt, 1844)	5/13
	<i>Campylocheta</i>	<i>C. praecox</i> (Meigen, 1824)	1/9
	<i>Cyrtophleba</i>	<i>C. ruricola</i> (Meigen, 1824)	1/2
	<i>Dexia</i>	<i>D. rustica</i> (Fabricius, 1775)	1/2
	<i>Dinera</i>	<i>D. carinifrons</i> (Fallen, 1817), <i>D. ferina</i> (Fallen, 1817), <i>D. grisescens</i> (Fallen, 1817)	3/3
	<i>Dufouria</i>	<i>D. chalybeata</i> (Meigen, 1824)	1/4
	<i>Eriothrix</i>	<i>E. apenninus</i> (Rondani, 1862), <i>E. argyreatus</i> (Meigen, 1824), <i>E. prolixa</i> (Meigen, 1824), <i>E. rufomaculatus</i> (De Geer, 1776)	4/9
	<i>Estheria</i>	<i>E. bohemani</i> (Rondani, 1862), <i>E. petiolata</i> (Bonsdorff, 1866), <i>E. picta</i> (Meigen, 1826)	3/12
	<i>Kirbya</i>	<i>K. moerens</i> (Meigen, 1830)	1/2
	<i>Klugia</i>	<i>K. marginata</i> (Meigen, 1824)	1/1
	<i>Periscepsia</i>	<i>P. carbonaria</i> (Panzer, 1798)	1/2
	<i>Phyllomya</i>	<i>P. volvulus</i> (Fabricius, 1794)	1/2
	<i>Plagiomima</i>	<i>P. hilfi</i> (Strobl, 1902)	1/2
	<i>Prosenia</i>	<i>P. siberita</i> (Fabricius, 1775)	1/1
	<i>Rhamphina</i>	<i>R. pedemontana</i> (Meigen, 1824)	1/2
	<i>Stomina</i>	<i>S. tachinoides</i> (Fallen, 1817)	1/4
	<i>Thelaira</i>	<i>T. leucozona</i> (Panzer, 1809), <i>T. nigripes</i> (Fabricius, 1794) <i>T. solivaga</i> (Harris, 1780)	3/3
	<i>Trafoia</i>	<i>T. monticola</i> Brauer & Bergenstamm, 1893	1/3
	<i>Trixa</i>	<i>T. conspersa</i> (Harris, 1776)	1/5
<i>Voria</i>	<i>V. ruralis</i> (Fallen, 1810)	1/1	
<i>Wagneria</i>	<i>W. gagatea</i> Robineau-Desvoidy, 1830	1/9	
<i>Zeuxia</i>	<i>Z. aberrans</i> (Loew, 1847), <i>Z. cinerea</i> Meigen, 1826	2/13	
Exoristinae	<i>Acemya</i>	<i>A. ruffitibia</i> (von Roser, 1840)	1/3
	<i>Admontia</i>	<i>A. maculisquama</i> (Zetterstedt, 1859)	1/9
	<i>Aplomya</i>	<i>A. confinis</i> (Fallen, 1820)	1/1
	<i>Atylomyia</i>	<i>A. loewi</i> Brauer, 1898	1/3

Table 1. Continued.

SUBFAMILY	GENUS	SPECIES	*SPECIES EXPLORATION
Exoristinae	<i>Bactromyia</i>	<i>B. aurulenta</i> (Meigen, 1824)	1/1
	<i>Baumhaueria</i>	<i>B. goniaeformis</i> (Meigen, 1824), <i>B. microps</i> Mesnil, 1963	2/3
	<i>Bessa</i>	<i>B. parallela</i> (Meigen, 1824)	1/2
	<i>Blepharipa</i>	<i>B. pratensis</i> (Meigen, 1824), <i>B. schineri</i> (Mesnil, 1939)	2/2
	<i>Blondelia</i>	<i>B. inclusa</i> (Hartig, 1838), <i>B. nigripes</i> (Fallen, 1810)	2/2
	<i>Bothria</i>	<i>B. frontosa</i> (Meigen, 1824)	1/2
	<i>Brachicheta</i>	<i>B. strigata</i> (Meigen, 1824)	1/1
	<i>Buquetia</i>	<i>B. musca</i> Robineau-Desvoidy 1847	1/1
	<i>Cadurcia</i>	<i>C. casta</i> (Rondani, 1861)	1/1
	<i>Carcellia</i>	<i>C. atricosta</i> Herting, 1961, <i>C. bombylans</i> Robineau-Desvoidy, 1830, <i>C. falenaria</i> (Rondani, 1859), <i>C. gnava</i> (Meigen, 1824), <i>C. lucorum</i> (Meigen, 1824), <i>C. puberula</i> Mesnil, 1941, <i>C. rasa</i> (Macquart, 1849), <i>C. rasella</i> Baranov, 1931	8/16
	<i>Catagonia</i>	<i>C. aberrans</i> (Rondani, 1859)	1/1
	<i>Ceratochaetops</i>	<i>C. triseta</i> (Villeneuve, 1922)	1/2
	<i>Ceromasia</i>	<i>C. rubrifrons</i> (Macquart, 1834)	1/1
	<i>Chetogena</i>	<i>C. acuminata</i> Rondani, 1859, <i>C. filipalpis</i> Rondani, 1859, <i>C. media</i> Rondani, 1859, <i>C. nigrofasciata</i> (Strobl, 1902)	4/13
	<i>Clemelis</i>	<i>C. pullata</i> (Meigen, 1824)	1/5
	<i>Compsilura</i>	<i>C. concinnata</i> (Meigen, 1824)	1/1
	<i>Cyzenis</i>	<i>C. albicans</i> (Fallén, 1810)	1/2
	<i>Diplostichus</i>	<i>D. janitrix</i> (Hartig, 1838)	1/1
	<i>Drino</i>	<i>D. atropivora</i> (Robineau-Desvoidy, 1830), <i>D. galii</i> (Brauer & Bergenstamm, 1891), <i>D. inconspicua</i> (Meigen, 1830), <i>D. lota</i> (Meigen, 1824), <i>D. vicina</i> (Zetterstedt, 1849)	5/9
	<i>Elodia</i>	<i>E. morio</i> (Fallen, 1820)	1/3
	<i>Epicampocera</i>	<i>E. succincta</i> (Meigen, 1824)	1/1
	<i>Erycia</i>	<i>E. fasciata</i> Villeneuve, 1924, <i>E. fatua</i> (Meigen, 1824), <i>E. festinans</i> (Meigen, 1824)	3/4
	<i>Erynniopsis</i>	<i>E. antennata</i> (Rondani, 1861)	1/1
<i>Erythrocera</i>	<i>E. nigripes</i> (Robineau-Desvoidy, 1830)	1/1	
<i>Ethilla</i>	<i>E. aemula</i> (Meigen, 1824)	1/1	
<i>Eumea</i>	<i>E. linearicornis</i> (Zetterstedt, 1844), <i>E. mitis</i> (Meigen, 1824)	2/2	
<i>Eurysthaea</i>	<i>E. scutellaris</i> (Robineau-Desvoidy, 1848)	1/1	

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Table 1. Continued.

SUBFAMILY	GENUS	SPECIES	*SPECIES EXPLORATION
Exoristinae	<i>Exorista</i>	<i>E. civilis</i> (Rondani, 1859), <i>E. deligata</i> Pandelle, 1896, <i>E. fasciata</i> (Fallen, 1820), <i>E. florentina</i> Herting, 1975, <i>E. grandis</i> (Zetterstedt, 1844), <i>E. larvarum</i> (Linnaeus, 1758), <i>E. mimula</i> (Meigen, 1824), <i>E. nympharum</i> (Rondani, 1859), <i>E. rustica</i> (Fallen, 1810), <i>E. segregata</i> (Rondani, 1859), <i>E. sorbillans</i> (Wiedemann, 1830), <i>E. tubulosa</i> Herting, 1967, <i>E. xanthaspis</i> (Wiedemann, 1830)	13/23
	<i>Gaedia</i>	<i>G. connexa</i> (Meigen, 1824), <i>G. distincta</i> Egger, 1861	2/3
	<i>Gastrolepta</i>	<i>G. anthracina</i> (Meigen, 1826)	1/1
	<i>Gonia</i>	<i>G. bimaculata</i> Wiedemann, 1819, <i>G. capitata</i> (De Geer, 1776), <i>G. distinguenda</i> Herting, 1963, <i>G. divisa</i> Meigen, 1826, <i>G. ornata</i> Meigen, 1826, <i>G. picea</i> (Robineau-Desvoidy, 1830), <i>G. vacua</i> Meigen, 1826	7/14
	<i>Huebneria</i>	<i>H. affinis</i> (Fallen, 1810)	1/1
	<i>Istocheta</i>	<i>I. cinerea</i> (Macquart, 1850), <i>I. longicornis</i> (Fallen, 1810)	2/6
	<i>Lecanipa</i>	<i>L. bicincta</i> (Meigen, 1824), <i>L. leucomelas</i> (Meigen, 1824)	2/2
	<i>Leiophora</i>	<i>L. innoxia</i> (Meigen, 1824)	1/1
	<i>Ligeria</i>	<i>L. angusticornis</i> (Loew, 1847)	1/2
	<i>Ligeriella</i>	<i>L. aristata</i> (Villeneuve, 1911)	1/1
	<i>Lydella</i>	<i>L. thompsoni</i> Herting, 1959	1/6
	<i>Masicera</i>	<i>M. silvatica</i> (Fallen, 1810), <i>M. sphingivora</i> (Robineau-Desvoidy, 1830)	2/3
	<i>Medina</i>	<i>M. luctuosa</i> (Meigen, 1824), <i>M. multispina</i> (Herting, 1966)	2/5
	<i>Meigenia</i>	<i>M. dorsalis</i> (Meigen, 1824), <i>M. majuscula</i> (Rondani, 1859), <i>M. mutabilis</i> (Fallen, 1810), <i>M. uncinata</i> Mesnil, 1967	4/7
	<i>Myxexoristops</i>	<i>M. bicolor</i> (Villeneuve, 1908), <i>M. blondeli</i> (Robineau-Desvoidy, 1830)	2/6
	<i>Nemorilla</i>	<i>N. floralis</i> (Fallen, 1810), <i>N. maculosa</i> (Meigen, 1824)	2/2
	<i>Nilea</i>	<i>N. hortulana</i> (Meigen, 1824), <i>N. innoxia</i> Robineau-Desvoidy, 1863	2/4
	<i>Ocytata</i>	<i>O. pallipes</i> (Fallen, 1820)	1/1
	<i>Oswaldia</i>	<i>O. spectabilis</i> (Meigen, 1824)	1/5
	<i>Pales</i>	<i>P. pavidus</i> (Meigen, 1824)	1/6
	<i>Parasetigena</i>	<i>P. silvestris</i> (Robineau-Desvoidy, 1863)	1/1
	<i>Paratryphera</i>	<i>P. barbatula</i> (Rondani, 1859), <i>P. bisetosa</i> (Brauer & Bergenstamm, 1891), <i>P. palpalis</i> (Rondani, 1859)	3/4
	<i>Periarchiclops</i>	<i>P. scutellaris</i> (Fallen, 1820)	1/1
<i>Phebellia</i>	<i>P. glauca</i> (Meigen, 1824), <i>P. nigripalpis</i> (Robineau-Desvoidy, 1847), <i>P. stulta</i> (Zetterstedt, 1844)	3/11	
<i>Phonomyia</i>	<i>P. aristata</i> (Rondani, 1861)	1/1	

Table 1. Continued.

SUBFAMILY	GENUS	SPECIES	*SPECIES EXPLORATION
Exoristinae	<i>Phorinia</i>	<i>P. aurifrons</i> Robineau-Desvoidy, 1830	1/1
	<i>Phorocera</i>	<i>P. assimilis</i> (Fallen, 1810), <i>P. obscura</i> (Fallen, 1810)	2/4
	<i>Phryxe</i>	<i>P. erythrostroma</i> (Hartig, 1838), <i>P. hirta</i> (Bigot 1880), <i>P. magnicornis</i> (Zetterstedt, 1838), <i>P. nemea</i> (Meigen, 1824), <i>P. prima</i> (Brauer & Bergenstamm, 1889), <i>P. vulgaris</i> (Fallen, 1810)	6/12
	<i>Picconia</i>	<i>P. incurva</i> (Zetterstedt, 1844)	1/1
	<i>Platymya</i>	<i>P. fimbriata</i> (Meigen, 1824)	1/2
	<i>Policheta</i>	<i>P. unicolor</i> (Fallén, 1820)	1/1
	<i>Prosopea</i>	<i>P. nigricans</i> (Egger, 1861)	1/1
	<i>Pseudogonia</i>	<i>P. parisiaca</i> (Robineau-Desvoidy, 1851), <i>P. rufifrons</i> (Wiedemann, 1830)	2/3
	<i>Pseudoperichaeta</i>	<i>P. nigrolineata</i> (Walker, 1853), <i>P. palesoidea</i> (Robineau-Desvoidy, 1830)	2/2
	<i>Rhaphiochaeta</i>	<i>R. breviseta</i> (Zetterstedt, 1838)	1/1
	<i>Senometopia</i>	<i>S. confundens</i> (Rondani, 1859), <i>S. excisa</i> (Fallen, 1820), <i>S. pollinosa</i> (Mesnil, 1941), <i>S. separata</i> (Rondani, 1859), <i>S. susurrans</i> (Rondani, 1859)	5/8
	<i>Smidtia</i>	<i>S. amoena</i> (Meigen, 1824)	1/4
	<i>Spallanzania</i>	<i>S. hebes</i> (Fallen, 1820), <i>S. multisetosa</i> (Rondani, 1859)	2/5
	<i>Sturmia</i>	<i>S. bella</i> (Meigen, 1824)	1/1
	<i>Thecocarcelia</i>	<i>T. acutangulata</i> (Macquart, 1850), <i>T. trichops</i> Herting, 1967	2/2
	<i>Townsendiellomyia</i>	<i>T. nidicola</i> (Townsend, 1908)	1/1
	<i>Tryphera</i>	<i>T. lugubris</i> (Meigen, 1824)	1/1
	<i>Vibrissina</i>	<i>V. turrita</i> (Meigen, 1824)	1/2
	<i>Winthemia</i>	<i>W. erythrura</i> (Meigen, 1838), <i>W. quadripustulata</i> (Fabricius, 1794), <i>W. rufiventris</i> (Macquart, 1849), <i>W. variegata</i> (Meigen, 1824), <i>W. venusta</i> (Meigen, 1824)	5/11
	<i>Zaira</i>	<i>Z. cinerea</i> (Fallen, 1810)	1/1
<i>Zenillia</i>	<i>Z. dolosa</i> (Meigen 1824), <i>Z. libatrix</i> (Panzer, 1798)	2/2	
Phasiinae	<i>Besseria</i>	<i>B. dimidiata</i> (Zetterstedt, 1844)	1/6
	<i>Cistogaster</i>	<i>C. globosa</i> (Fabricius, 1775)	1/2
	<i>Clytiomya</i>	<i>C. continua</i> (Panzer, 1798)	1/4
	<i>Cylindromyia</i>	<i>C. auriceps</i> (Meigen, 1838), <i>C. bicolor</i> (Olivier, 1812), <i>C. brassicaria</i> (Fabricius, 1775), <i>C. brevicornis</i> (Loew, 1844), <i>C. intermedia</i> (Meigen, 1824), <i>C. interrupta</i> (Meigen, 1824), <i>C. pilipes</i> (Loew, 1844), <i>C. rufipes</i> (Meigen, 1824)	8/17
	<i>Dionaea</i>	<i>D. auifrons</i> (Meigen, 1824)	1/3
	<i>Ectophasia</i>	<i>E. crassipennis</i> (Fabricius, 1794)	1/3

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Table 1. Continued.

SUBFAMILY	GENUS	SPECIES	*SPECIES EXPLORATION
Phasiinae	<i>Elomya</i>	<i>E. lateralis</i> (Meigen, 1824)	1/1
	<i>Gymnosoma</i>	<i>G. clavatum</i> (Rohdendorf, 1947), <i>G. costatum</i> (Panzer, 1800), <i>G. desertorum</i> (Rohdendorf, 1947), <i>G. inornatum</i> Zimin, 1966, <i>G. nudifrons</i> Herting, 1966, <i>G. rotundatum</i> (Linnaeus, 1758)	6/13
	<i>Hemyda</i>	<i>H. obscuripennis</i> (Meigen, 1824)	1/2
	<i>Labigastera</i>	<i>L. forcipata</i> (Meigen, 1824)	1/4
	<i>Leucostoma</i>	<i>L. simplex</i> (Fallen, 1815), <i>L. tetraptera</i> (Meigen, 1824)	2/12
	<i>Lophosia</i>	<i>L. fasciata</i> Meigen, 1824	1/1
	<i>Opesia</i>	<i>O. cana</i> (Meigen, 1824), <i>O. grandis</i> (Egger, 1860)	2/3
	<i>Phania</i>	<i>P. funesta</i> (Meigen, 1824), <i>P. incrassata</i> Pandellé, 1894, <i>P. speculifrons</i> (Villeneuve, 1919)	3/6
	<i>Phasia</i>	<i>P. aurigera</i> (Egger, 1860), <i>P. hemiptera</i> (Fabricius, 1794), <i>P. obesa</i> (Fabricius, 1798), <i>P. pusilla</i> Meigen, 1824	4/14
	<i>Redtenbacheria</i>	<i>R. insignis</i> Egger, 1861	1/1
<i>Xysta</i>	<i>X. holosericea</i> (Fabricius, 1805)	1/1	
Tachininae	<i>Actia</i>	<i>A. crassicornis</i> (Meigen, 1824), <i>A. infantula</i> (Zetterstedt, 1844), <i>A. pilipennis</i> (Fallen, 1810)	3/7
	<i>Aphria</i>	<i>A. longilingua</i> Rondani, 1861, <i>A. longirostris</i> (Meigen, 1824)	2/4
	<i>Bithia</i>	<i>B. demotica</i> (Egger, 1861), <i>B. immaculata</i> (Herting, 1971) <i>B. modesta</i> (Meigen, 1824)	3/12
	<i>Chrysosomopsis</i>	<i>C. aurata</i> (Fallén, 1820)	1/1
	<i>Demoticus</i>	<i>D. plebejus</i> (Fallen, 1810)	1/3
	<i>Entomophaga</i>	<i>E. exoleta</i> (Meigen, 1824)	1/3
	<i>Eurithia</i>	<i>E. anthophila</i> (Robineau-Desvoidy, 1830), <i>E. caesia</i> (Fallen, 1810), <i>E. connivens</i> (Zetterstedt, 1844), <i>E. consobrina</i> (Meigen, 1824), <i>E. cristata</i> (Villeneuve, 1920), <i>E. gemina</i> (Mesnil, 1972), <i>E. intermedia</i> (Zetterstedt, 1844), <i>E. vivida</i> (Zetterstedt, 1838)	8/14
	<i>Germaria</i>	<i>G. ruficeps</i> (Fallén, 1820)	1/5
	<i>Linnaemya</i>	<i>L. comta</i> (Fallen, 1810), <i>L. frater</i> (Rondani, 1859), <i>L. helvetica</i> Herting, 1963, <i>L. impudica</i> (Rondani, 1859), <i>L. lithosiophaga</i> (Rondani, 1859), <i>L. picta</i> (Meigen, 1824), <i>L. rossica</i> Zimin, 1954, <i>L. tessellans</i> (Robineau-Desvoidy, 1830), <i>L. vulpina</i> (Fallén, 1810), <i>L. zachvatkini</i> Zimin, 1954	10/21
	<i>Loewia</i>	<i>L. setibarba</i> Egger, 1856	1/11
<i>Lydina</i>	<i>L. aenea</i> (Meigen, 1824)	1/1	

Table 1. Continued.

SUBFAMILY	GENUS	SPECIES	*SPECIES EXPLORATION
Tachininae	<i>Macquartia</i>	<i>M. chalconota</i> (Meigen, 1824), <i>M. dispar</i> (Fallen, 1820), <i>M. grisea</i> (Fallen, 1810), <i>M. nudigena</i> Mesnil, 1972, <i>M. tenebricosa</i> (Meigen, 1824), <i>M. tessellum</i> (Meigen, 1824), <i>M. viridana</i> Robineau-Desvoidy, 1863	7/11
	<i>Microphthalma</i>	<i>M. europaea</i> Egger, 1860	1/1
	<i>Mintho</i>	<i>M. rufiventris</i> (Fallen, 1817)	1/2
	<i>Nemoraea</i>	<i>N. pellucida</i> (Meigen, 1824)	1/1
	<i>Nowickia</i>	<i>N. atripalpis</i> (Robineau-Desvoidy, 1863), <i>N. ferox</i> (Panzer, 1809), <i>N. reducta</i> Mesnil, 1970	3/8
	<i>Panzeria</i>	<i>P. argentifera</i> (Meigen, 1824), <i>P. puparum</i> (Fabricius, 1794), <i>P. rudis</i> (Fallen, 1810)	3/5
	<i>Pelatachina</i>	<i>P. tibialis</i> (Fallen, 1810)	1/1
	<i>Peleteria</i>	<i>P. rubescens</i> (Robineau-Desvoidy, 1830), <i>P. ruficornis</i> (Macquart, 1835), <i>P. varia</i> (Fabricius, 1794)	3/9
	<i>Peribaea</i>	<i>P. apicalis</i> Robineau-Desvoidy, 1863, <i>P. setinervis</i> (Thomson, 1869), <i>P. tibialis</i> (Robineau-Desvoidy, 1851)	3/6
	<i>Siphona</i>	<i>S. collini</i> Mesnil, 1960, <i>S. flavifrons</i> Stæger, 1849, <i>S. geniculata</i> (De Geer, 1776)	3/22
	<i>Solieria</i>	<i>S. fenestrata</i> (Meigen, 1824), <i>S. pacifica</i> (Meigen, 1824)	2/5
	<i>Tachina</i>	<i>T. casta</i> (Rondani, 1859), <i>T. fera</i> (Linnaeus, 1761), <i>T. grossa</i> (Linnaeus, 1758), <i>T. lurida</i> (Fabricius, 1781), <i>T. magnicornis</i> (Zetterstedt, 1844), <i>T. nupta</i> (Rondani, 1859), <i>T. praeceps</i> Meigen, 1824, <i>T. ursina</i> Meigen, 1824	8/12
	<i>Trichactia</i>	<i>T. pictiventris</i> (Zetterstedt, 1855)	1/2
<i>Zophomyia</i>	<i>Z. temula</i> (Scopoli, 1763)	1/1	

Most of the updated species in the summarized table 1 were taken from Hubenov (2008a), 46 species, while two species were taken from Stanković *et al.* (2014). We give a list of 295 tachinid species for the fauna of Serbia and Montenegro along with new findings. Almost half of the species belong to Exoristinae subfamily being the most diverse one, and with the most diverse genus *Exorista* with 12 species recorded. The second most numerous subfamily is Tachininae comprising of 70 species in total, while the other two Dexinae and Phasiinae are represented with 38 species. The genera richness for the European fauna are also well represented on the investigated territory. For example, *Exorista*, *Gonia*, *Cylindromyia*, *Eurithia*, *Linnaemya* and *Tachina* comprise of a half or more than a half of the total European species from the mentioned genera. However, genera such as *Leucostoma* and especially *Siphona* are actually poorly represented in comparison to the whole European fauna (see Table 1).

This faunistic survey represents a good starting point for further tachinid investigation and possibly integrated pest management.

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