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Contribution to the tachinid fauna of southwestern Turkey (Diptera: Tachinidae)

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Summary. Faunistic records for 139 tachinid species from southwestern Turkey (Muğla province and adjacent Aydın, Burdur, Denizli and Antalya provinces) are given. Another 17 species of the study area are known only from published records. The known fauna of Tachinidae of southwestern Turkey thus comprises 156 species. Zoogeographic analysis of the study area revealed that tachinids belong to 29 chorological categories, divided into two superfamilies: 122 species (78.2\%) are more eurybiontic, and also distributed in northern parts of the Palaearctic region (19 chorological categories belong here), whereas 34 species (21.8\%) are distinctly thermophilic, and have a southern type of distribution (10 chorological categories are distinguished). Altogether, 52 species (33.3\%) are recorded for the first time from Turkey.

Résumé. Contribution à la connaissance de la faune des Tachinaires du sud-ouest de la Turquie (Diptera : Tachinidae). Des données faunistiques sur 139 espèces de tachinidés du sud-ouest de la Turquie (province de Muğla et provinces adjacentes d’Aydı̈n, Burdur, Denizli et Antalya) sont fournies. Dix-sept autres espèces de la zone d’étude sont connues uniquement à partir des enregistrements publiés. La faune connue des Tachinidae du sud-ouest de la Turquie comprend donc 156 espèces. L’analyse zoogéographique de la zone d’étude a révélé que les tachinidés appartiennent à 29 catégories chorologiques décomposées en 2 superfamilles : 122 espèces (78,2\%) sont plus eurybiontiques et également réparties dans les parties septentrionales de la région palaearctique (19 catégories chorologiques appartiennent ici), tandis que 34 les espèces (21,8\%) sont nettement thermophiles et ont un type de distribution méridional (on distingue 10 catégories chorologiques). Au total, 52 espèces (33,3\%) sont signalées pour la première fois de Turquie.

Keywords: Tachinid flies; faunistics; new records; distribution; chorological analysis; Mediterranean region

Tachinid flies are one of the largest families in the order Diptera and distinctly the largest group of the Calyptrata section (Pape et al. 2011). About 1850 valid species were recorded from the Palaearctic by Herting (1984) or Herting & Dely-Draskovits (1993), but several dozens of species were described afterwards. Some of these insects are black, tiny and rarely seen in nature, while others are bright, large, and easily spotted in the field. When feeding from flowers, tachinids play a role as pollinators of some plants (Tooker et al. 2006; Al-Dobai et al. 2012; Krivosheina & Richter 2015). Tachinid larvae develop as parasitoids in many insect host orders (predominantly moth caterpillars, but also sawfly larvae, beetle larvae and adults, crane fly larvae, true bugs, crickets, and several more) and to a minor extent also several terrestrial non-insect arthropods (specifically centipedes and scorpions). Herting (1960) lists hosts for the West Palaearctic fauna and gives the main features on the biology of this family, but many updates to the host list were provided afterwards (see Tschorsnig 2017). Tachinids are beneficial in agriculture and forestry, where their insect hosts may be pests of crops, as they are second only to the parasitic Hymenoptera in diversity and ecological importance as insect parasitoids (Stireman et al. 2006). However, the diversity of tachinids is determined not just by diversity of hosts in the habitat, but also habitat connectivity that enables parasitoid spillover, and other ecological factors (İnclan et al. 2014, 2015, 2016).


Material and methods
The material of this study is from southwestern Turkey, mainly from the Muğla province, but to a minor extent also from the four adjacent Aydın, Burdur, Denizli and Antalya provinces (Figure 1). The survey involved collection of all groups of Diptera, and was organized by Miroslav Barták, who also brought together other researchers; their results on the other groups are presented in different publications (e.g. Barták et al. 2014; Verves et al. 2017; Popp et al. 2018). Flies were collected by the Czech dipterologists Miroslav Barták, Štěpán Kubík and Jiří Halada, and Turkish colleagues, Oktay Dursun, Hasan-Sungur Civelek, Hatice Kavak and Hanife Pala. Coordinates, localities and altitudes are provided in Table 1. The basic material was obtained during the years 2011–2016, but small samples were collected already earlier (from 2006).

After being preserved in ethyl alcohol (70%), all of the specimens were mounted dry using a method described by Barták (1997). In accordance with this method, flies are placed into the following three successive solutions: 1 – formalin (40% water solution of formaldehyde) + 96% ethyl alcohol (1:1 to 1:3); II – 96% ethyl alcohol + ethyl acetate (1:1); and III – pure ethyl acetate. Flies are kept in each of these three solutions for at least 12 h. Flies are transferred from solution III onto a section of cardboard using a soft tweezer and, if necessary, the wings and legs are stretched, adding an additional drop of ethyl acetate (when putting flies on the cardboard, wings sometimes become folded, and to repair this another drop of ethyl acetate must immediately be put on the wing). After being dried for approximately 30 min, the flies are mounted on cards.

The material was identified by the first and second authors of this report, i.e. Erikas Lutovinovas and Hans-Peter Tschornig. Several specimens of Siphona, Estheria, Gymnosoma, Phasia, and Leucostoma, and one specimen of Carcelia and Elodia, were not identifiable with certainty to species level, often because of the condition of the material. This material is not listed here. Furthermore, as only male genitalia allow identification to species level in the Meigenia mutabilis-group, most females of this group and some males with the genitalia not fully visible were omitted. The tachinids are stored in the collection of the Czech University of Life Sciences Prague (CULSP), except for 40 duplicate specimens of several species and the single specimens of Palmonia hermonensis, Hypovoria pilibasis, and Cylindromyia hermonensis, which are preserved in Stuttgart State Museum of Natural History (SMNS).

Results
Altogether, 139 tachinid species were identified (Figure 2) and 17 additional species from published sources are presented. Subfamilies are arranged in order of the relevant catalogs of Herting (1984) or Herting & Dely-Draskovits (1993). Species are arranged alphabetically within each subfamily. Localities are sorted alphabetically after the province names. Species newly recorded for Turkey are marked with an asterisk (*), and those whose presence was validated only by previous sources are marked in square brackets in the species list. Sampling methods and their abbreviations are as follows: Malaise traps (MT), yellow pan traps (YPT), protein traps (PT), and swept material (SW). The general distribution is mostly derived from Herting (1984) or Herting & Dely-Draskovits (1993), but Sun & Marshall (1995, 2003), Andersen (1996), Ziegler & Shima (1996), Cerretti & Ziegler (2004), O’Hara & Wood (2004), Richter (2004), Zeegers (2007, 2010, 2016, 2017), Gheibi et al. (2008, 2010), Cerretti & Freidberg (2009), O’Hara et al. (2009), Cerretti & Shima (2011), Dawah (2011), Tachi (2012), Giliasian et al. (2013, 2014, 2016, 2017), Seyyedi-Sahebari et al. (2013, 2014, 2016), and O’Hara & Cerretti (2016) are also consulted. Additional sources are cited for the species repeatedly recorded from Turkey.

List of records

Subfamily Exoristinae

*Acemya rufitibia* (von Roser, 1840)

Distribution. West Palaearctic–South Siberian–East Palaearctic (throughout Europe and Transcaucasia to China, see Herting & Dely-Draskovits 1993; O’Hara et al. 2009); first record from Turkey.

Amphicestonia dispar Villeneuve, 1939


Distribution. South and East Mediterranean–Middle Eastern–Central Asian (Southern Balkans and Northern Africa to Turkmenistan, Tajikistan, see Herting & Dely-Draskovits 1993; Cerretti & Ziegler 2004), recorded from Turkey (Kara 2001a).

Aplomya confinis (Fallén, 1820)

Table 1. List of localities with coordinates and altitudes.

<table>
<thead>
<tr>
<th>No.</th>
<th>Province</th>
<th>Locality</th>
<th>Latitude (N)</th>
<th>Longitude (E)</th>
<th>Altitude (m)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Antalya</td>
<td>Side</td>
<td>36°12'00&quot;</td>
<td>31°23'00&quot;</td>
<td>–</td>
</tr>
<tr>
<td>2</td>
<td>Aydın</td>
<td>Ortaklar</td>
<td>37°53.031</td>
<td>27°29.570</td>
<td>57</td>
</tr>
<tr>
<td>3</td>
<td>Aydın</td>
<td>8 km S of Çine</td>
<td>37°32'34&quot;</td>
<td>28°03'46&quot;</td>
<td>68</td>
</tr>
<tr>
<td>4</td>
<td>Aydın</td>
<td>9 km S of Çine</td>
<td>37°31'36&quot;</td>
<td>28°04'29&quot;</td>
<td>70</td>
</tr>
<tr>
<td>5</td>
<td>Burdur</td>
<td>5 km NE Yeşilova</td>
<td>37°35'00&quot;</td>
<td>29°55'00&quot;</td>
<td>1060</td>
</tr>
<tr>
<td>6</td>
<td>Burdur</td>
<td>20 km SW Burdur</td>
<td>37°37'00&quot;</td>
<td>30°09'00&quot;</td>
<td>940</td>
</tr>
<tr>
<td>7</td>
<td>Denizli</td>
<td>10 km NE Denizli</td>
<td>37°56'00&quot;</td>
<td>29°07'00&quot;</td>
<td>290</td>
</tr>
<tr>
<td>8</td>
<td>Muğla</td>
<td>Akyaka (a)</td>
<td>37°03'16&quot;</td>
<td>28°19'35&quot;</td>
<td>30</td>
</tr>
<tr>
<td>9</td>
<td>Muğla</td>
<td>Akyaka (b)</td>
<td>37°03'21&quot;</td>
<td>28°19'09&quot;</td>
<td>40</td>
</tr>
<tr>
<td>10</td>
<td>Muğla</td>
<td>Akyaka (c)</td>
<td>37°02'19&quot;</td>
<td>28°19'36&quot;</td>
<td>40</td>
</tr>
<tr>
<td>11</td>
<td>Muğla</td>
<td>Akyaka (d)</td>
<td>37°02'09&quot;</td>
<td>28°20'17&quot;</td>
<td>4</td>
</tr>
<tr>
<td>12</td>
<td>Muğla</td>
<td>Akyaka (e)</td>
<td>37°03'19&quot;</td>
<td>28°20'07&quot;</td>
<td>6</td>
</tr>
<tr>
<td>13</td>
<td>Muğla</td>
<td>Akyaka (f)</td>
<td>37°03'11&quot;</td>
<td>28°20'33&quot;</td>
<td>8</td>
</tr>
<tr>
<td>14</td>
<td>Muğla</td>
<td>Akyaka (g)</td>
<td>37°03'16&quot;</td>
<td>28°19'57&quot;</td>
<td>–</td>
</tr>
<tr>
<td>15</td>
<td>Muğla</td>
<td>Akyaka (h)</td>
<td>37°02'53&quot;</td>
<td>28°19'39&quot;</td>
<td>–</td>
</tr>
<tr>
<td>16</td>
<td>Muğla</td>
<td>Akyaka (i)</td>
<td>37°03'00&quot;</td>
<td>28°20'00&quot;</td>
<td>2</td>
</tr>
<tr>
<td>17</td>
<td>Muğla</td>
<td>Akyaka (j)</td>
<td>37°01'49&quot;</td>
<td>28°20'01&quot;</td>
<td>2</td>
</tr>
<tr>
<td>18</td>
<td>Muğla</td>
<td>Akyaka (k)</td>
<td>37°01'00&quot;</td>
<td>28°20'00&quot;</td>
<td>2</td>
</tr>
<tr>
<td>19</td>
<td>Muğla</td>
<td>Bozbel, Göksel</td>
<td>36°55.219</td>
<td>28°56.335</td>
<td>153</td>
</tr>
<tr>
<td>20</td>
<td>Muğla</td>
<td>Dalyan (a)</td>
<td>36°48'54&quot;</td>
<td>28°39'04&quot;</td>
<td>1</td>
</tr>
<tr>
<td>21</td>
<td>Muğla</td>
<td>Dalyan (b)</td>
<td>36°47'49&quot;</td>
<td>28°38'55&quot;</td>
<td>–</td>
</tr>
<tr>
<td>22</td>
<td>Muğla</td>
<td>Kızılıyaka</td>
<td>37°01'21&quot;</td>
<td>28°26'18&quot;</td>
<td>105</td>
</tr>
<tr>
<td>23</td>
<td>Muğla</td>
<td>Menteşe</td>
<td>37°24'00&quot;</td>
<td>28°37'00&quot;</td>
<td>783</td>
</tr>
<tr>
<td>24</td>
<td>Muğla</td>
<td>Muğla, Kötekli (a)</td>
<td>37°09'42&quot;</td>
<td>28°22'22&quot;</td>
<td>684</td>
</tr>
<tr>
<td>25</td>
<td>Muğla</td>
<td>Muğla, Kötekli (b)</td>
<td>37°09'41&quot;</td>
<td>28°22'21&quot;</td>
<td>700</td>
</tr>
<tr>
<td>26</td>
<td>Muğla</td>
<td>Muğla, Kötekli (c)</td>
<td>37°09'39&quot;</td>
<td>28°22'20&quot;</td>
<td>710</td>
</tr>
<tr>
<td>27</td>
<td>Muğla</td>
<td>Muğla, Kötekli (d)</td>
<td>37°09'42&quot;</td>
<td>28°22'13&quot;</td>
<td>720</td>
</tr>
<tr>
<td>28</td>
<td>Muğla</td>
<td>Muğla, Kötekli (e)</td>
<td>37°09'38&quot;</td>
<td>28°22'11&quot;</td>
<td>730</td>
</tr>
<tr>
<td>29</td>
<td>Muğla</td>
<td>Toparlar (a)</td>
<td>36°59'27&quot;</td>
<td>28°38'50&quot;</td>
<td>8</td>
</tr>
<tr>
<td>30</td>
<td>Muğla</td>
<td>Toparlar (b)</td>
<td>36°58'39&quot;</td>
<td>28°39'30&quot;</td>
<td>60</td>
</tr>
<tr>
<td>31</td>
<td>Muğla</td>
<td>Toparlar (c)</td>
<td>36°59'73&quot;</td>
<td>28°38'08&quot;</td>
<td>140</td>
</tr>
<tr>
<td>32</td>
<td>Muğla</td>
<td>Yenice</td>
<td>37°06.978</td>
<td>28°19.102</td>
<td>670</td>
</tr>
<tr>
<td>33</td>
<td>Muğla</td>
<td>11 km E of Muğla</td>
<td>37°12'45&quot;</td>
<td>28°27'42&quot;</td>
<td>1310</td>
</tr>
<tr>
<td>34</td>
<td>Muğla</td>
<td>13 km NE of Muğla</td>
<td>37°14'50&quot;</td>
<td>28°30'00&quot;</td>
<td>1200</td>
</tr>
<tr>
<td>35</td>
<td>Muğla</td>
<td>5 km S of Muğla</td>
<td>37°08'27&quot;</td>
<td>28°22'05&quot;</td>
<td>670</td>
</tr>
<tr>
<td>36</td>
<td>Muğla</td>
<td>12 km SW of Muğla</td>
<td>37°07'40&quot;</td>
<td>28°16'28&quot;</td>
<td>660</td>
</tr>
<tr>
<td>37</td>
<td>Muğla</td>
<td>15 km SW of Muğla</td>
<td>37°06'31&quot;</td>
<td>28°15'31&quot;</td>
<td>630</td>
</tr>
<tr>
<td>38</td>
<td>Muğla</td>
<td>4 km N of Yatağan</td>
<td>37°22'12&quot;</td>
<td>28°09'22&quot;</td>
<td>460</td>
</tr>
</tbody>
</table>


Distribution. Holopalaearctic–Afrotropical (throughout Europe and Northern Africa to China, Japan, see Herting & Dely-Draskovits 1993; O’Hara et al. 2009; Yemen, see Zeegers 2007), recorded from Turkey (Kara 1998; Kara & Alaoğlu 2002; Bolu & Çınar 2005; Bolu & Kara 2006; Korkmaz 2007; single rearing record quoted by Tschorsnig 2017).

*Atylomyia loewii* Brauer, 1898

Material. Muğla province: Akyaka (d), pasture, leg. Bartak & Kubik, 16–27 IX.2012, 8♂, 3♀ [det. Tschorsnig]; Akyaka (j), salty meadow, same collectors, 22 VI–1 VII.2015, 2♂, 1♀ [det. Tschorsnig]; Akyaka (k), salty meadow, YPT, same collectors, 27 VI–1 V.2016, 1♂, 3♀ [det. Lutovinovas]; Dalyan (b), salty meadow, YPT, same collectors, 28–30 IV.2016, 11♂, 2♀ [det. Lutovinovas]; Muğla, Kötekli (e), MT, same collectors, IV.2016, 2♀ [det. Lutovinovas].

Distribution. West Palaearctic–South Siberian–East Palaearctic (throughout Europe and Middle East to Mongolia, see Herting & Dely-Draskovits 1993); first record from Turkey.

*Belida angelicae* (Meigen, 1824)

Figure 2. Several species of Turkish Tachinidae from the Muğla province. 

**Distribution.** West Palaearctic–South Siberian–East Palaearctic (throughout Europe and Middle East to Mongolia, see Herting & Dely-Draskovits 1993), recorded from Turkey (Atay et al. 2015).

*Blepharipa pratensis* (Meigen, 1824)


**Distribution.** Holartic (throughout Europe and Middle East to Japan, see Herting & Dely-Draskovits 1993; introduced to Nearctic, see O’Hara & Wood 2004), recorded from Turkey (Doğanlar 1982a; Kara 2001a; Korkmaz 2007; listed by Koçak & Kemal 2009, 2013, 2014).

*Blepharipa schineri* (Mesnil, 1839)


**Distribution.** West Palaearctic–South Siberian–East Palaearctic (throughout Europe to Russian Far East, China, Japan, see Herting & Dely-Draskovits 1993; Ziegler & Shima 1996; O’Hara et al. 2009), first record from Turkey.

**Blondelidia nigripes** (Fallén, 1810)

**Material.** Muğla province: 5 km S of Muğla, edge of pine wood, on flowers, leg. Barták & Kubík, 6.V.2013, 1♂, 1♀ [det. Tschorsnig].

**Distribution.** Holopalaearctic (throughout Europe and Middle East to China, Japan, see Herting & Dely-Draskovits 1993; O’Hara et al. 2009), recorded from Turkey (Doğanlar 1982a; Herting 1989; Atay & Kara 2014; rearing records quoted by Kara & Tschorsnig 2003; Tschorsnig 2017; listed by Koçak & Kemal 2009, 2013, 2014).

*Brachicheta petiolata* Mesnil, 1953

**Material.** Muğla province: Muğla, Kötekli (c), MT, leg. Barták & Kubík, XI.2012–III.2013, 16♂, 2♀; Muğla, Kötekli (d), MT, leg. Kavak, IV.2015, 2♂, 1♀ [all det. Tschorsnig]. – Remark: the petiole of wing cell R5 is variable in length, sometimes very short, but always present.

**Distribution.** East Mediterranean–Middle Eastern (Israel, Armenia, Azerbaijan, Iran, see Herting & Dely-Draskovits 1993; Cerretti & Freidberg 2009; Gheibi et al. 2010); first record from Turkey.

*Carcelia tritaeniata* (Rondani, 1859)

**Material.** Muğla province: Muğla, Kötekli (e), MT, leg. Kavak, 5.VII–17.IX.2015, 1♂, 2♀ [det. Lutovinovas].

**Distribution.** West and East (Disjunct) Palaearctic (throughout Europe; Japan, see Herting & Dely-Draskovits 1993); recorded from Turkey (Kara 2001b; listed by Koçak & Kemal 2013, 2014).

*Carcelia bombylans* Robineau-Desvoidy, 1830

**Material.** Muğla province: Akyaka (d), pasture, leg. Barták & Kubík, 16–27.IX.2012, 1♂, 2♀; same locality and collectors, YPT, 13–14.IX.2014, 1♂ [all det. Tschorsnig].

**Distribution.** West Palaearctic–South Siberian–East Palaearctic (throughout Europe and Transcaucasia to Russian Far East, China, Japan, see Herting & Dely-Draskovits 1993; Ziegler & Shima 1996; O’Hara et al. 2009); first record from Turkey.

*Carcelia dubia* (Brauer & Bergenstamm, 1891)


**Distribution.** West and East (Disjunct) Palaearctic (Central and Southern Europe, Transcaucasia; Russian Far East, China, see Herting & Dely-Draskovits 1993; Ziegler & Shima 1996; O’Hara et al. 2009), recorded from Turkey (Herting 1984; Herting & Dely-Draskovits 1993).

*Carcelia lucorum* (Meigen, 1824)

**Material.** Muğla province: Akyaka (j), salty meadow, leg. Barták & Kubík, 22.VI–1.VII.2015, 1♀ [det. Tschorsnig].

**Distribution.** Holopalaearctic (throughout Europe and Middle East to China, Japan, see Herting & Dely-Draskovits 1993; O’Hara et al. 2009); first record from Turkey.

*Ceracia mucronifera* Rondani, 1865


**Distribution.** Holomediterranean–Middle Eastern–Afrotropical (Southern Europe and Northern Africa to Transcaucasia, Israel, see Herting & Dely-Draskovits 1993; Cerretti & Freidberg 2009; Yemen, see Zeegers 2007); first record from Turkey.
Chetina setigena Rondani, 1856


**Distribution.** Holomediterranean–Middle Eastern–Central Asian (Southern Europe and Transcaucasia to Israel; Turkmenistan, Tajikistan, see Herting & Dely-Draskovits 1993; Cerretti & Freidberg 2009), recorded from Turkey (Kara 2001a; Korkmaz 2007).

Chetogena acuminata Rondani, 1859

**Material.** Muğla province: Muğla, Kötêkli (d), MT, leg. Pala, VII.2016, 1♀; Muğla, Kötêkli (e), MT, leg. Kavak, 5–9.VIII.2015, 1♂ [all det. Lutovinovas].

**Distribution.** Holopalaearctic–Palaeotropical (Central and Southern Europe and Northern Africa to China, Japan, see Herting & Dely-Draskovits 1993; O’Hara et al. 2009; Indonesia, Malaysia, Yemen, Cameroon, Nigeria, see Zeegers 2007; O’Hara & Cerretti 2016), recorded from Turkey (Kara 1998; Kara & Özdemir 2000; Kara & Alaoğlu 2001; Aksu 2005; single rearing record quoted by Kara & Tschorsnig 2003; Tschorsnig 2017).

Clemelis pullata (Meigen, 1824)


**Distribution.** Holopalaearctic (throughout Europe and Middle East to Mongolia, China, see Herting & Dely-Draskovits 1993; O’Hara et al. 2009), recorded from Turkey (Kara 1998; Kara & Alaoğlu 2002; Aksu 2005).

Compsilura concinnata (Meigen, 1824)


*Dolichocolon paradoxum* Brauer & Bergenstamm, 1889

**Material.** Muğla province: Akyaka (d), pasture, leg. Barták & Kubik, 16–22.IX.2012, 1♂; Toparlar (c), leg. Čivelek & Dursun, 30.V.2009, 3♀ [all det. Tschorsnig].

**Distribution.** Holomediterranean–Middle Eastern–Afrotropical (Southern Europe to Transcaucasia, Israel; DR Congo, Mozambique, see Cerretti & Freidberg 2009; O’Hara & Cerretti 2016; previously wrongly assigned to East Palaearctic, see Cerretti & Shim 2011); first record from Turkey.

Drino atropivora (Robineau-Desvoidy, 1830)

**Material.** Muğla province: Akyaka (d), pasture, leg. Barták & Kubik, 23–27.IX.2012, 1♂ [det. Tschorsnig].

**Distribution.** Holopalaearctic–Palaeotropical–Australasian (Central and Southern Europe and Northern Africa to China, Japan, see Herting & Dely-Draskovits 1993; O’Hara et al. 2009; DR Congo, Ghana, Kenya, Madagascar, India, Indonesia; Australia, see O’Hara & Cerretti 2016), recorded from Turkey (Bolu et al. 2015; single rearing record quoted by Tschorsnig 2017).

Drino galii (Brauer & Bergenstamm, 1891)

**Material.** Published record only: Burdur province (Bayram 1999).

**Distribution.** West Palaearctic–South Siberian–East Palaearctic (throughout Europe to Mongolia, see Herting & Dely-Draskovits 1993), also recorded from other parts of Turkey (Doğanlar 1982a; Herting 1984; Herting & Dely-Draskovits 1993; rearing records quoted by Kara & Tschorsnig 2003; Tschorsnig 2017).

Drino inconspicua (Meigen, 1830)

**Material.** Muğla province: Akyaka (a), forest, SW, leg. Barták & Kubik, 30.IV–9.V.2013, 1♂; Akyaka (e), pasture, YPT + SW, same collectors, 28.IV–8.V.2013, 1♂, 3♀; Muğla, Kötêkli (b), SW + YPT, same collectors, 29.IV–22.V.2013, 5♂, 11♀; Muğla, Kötêkli (d), MT, leg. Kavak, 26.V–
Holopalaearctic (throughout Europe and Transcaucasia to China, see Herting & Dely-Draskovits 1993; O’Hara et al. 2009), also recorded from other parts of Turkey (Schimitschek 1944; Doğanlar 1975, 1982a; Herting 1983b; Tschorsnig 2005; Korkmaz 2007; Avcı 2009; Akınç & Avcı 2016). Published records: Burdur province (Avcı 2009; Akınç & Avcı 2016).


*Erycesta caudigera* (Rondani, 1861)


Distribution. Holomediterranean–Middle Eastern (Southern Europe to Azerbaijan, Israel, see Herting & Dely-Draskovits 1993; Cerretti & Freidberg 2009); first record from Turkey.

*Erycia fasciata* Villeneuve, 1924


Distribution. West Palaearctic–South Siberian (Central and Southern Europe, Israel; Asian Russia to Transbaikalia, see Herting & Dely-Draskovits 1993; Cerretti & Freidberg 2009), recorded from Turkey (Bayram & Kara 1998; Aksu 2005; single rearing record quoted by Kara & Tschorsnig 2003; Tschorsnig 2017; listed by Koçak & Kemal 2013, 2014).

Exorista civilis* (Rondani, 1859)


Distribution. Holopalaearctic (Central and Southern Europe and Transcaucasia to Mongolia, China, see Herting & Dely-Draskovits 1993; O’Hara et al. 2009), recorded from Turkey (Balkan et al. 2015).

*Exorista kugleri* Mesnil, 1960


Distribution. South and East Mediterranean–Middle Eastern–Central Asian (Northern Africa to Tajikistan, see Herting & Dely-Draskovits 1993); first record from Turkey.

*Exorista larvarum* (Linnaeus, 1758)


[Exorista nova* (Rondani, 1859)]

Material. Published record only: Antalya province (Tschorsnig 2017).

Distribution. West and Central Palaearctic (Central and Southern Europe and Northern Africa to Uzbekistan, see Herting & Dely-Draskovits 1993), also recorded from other parts of Turkey (Herting 1989; Mückstein et al. 2004; rearing records quoted by Kara & Tschorsnig 2003; Tschorsnig 2017).

*Exorista rustica* (Fallén, 1810)

**Distribution.** Holopalaearctic (throughout Europe and Middle East to Russian Far East, China, see Herting & Dely-Draskovits 1993; Richter 2004; O’Hara et al. 2009), recorded from Turkey (Steiner 1937; Kara 1998; Kara & Alaoğlu 2002; Korkmaz 2007; single rearing record quoted by Tschorsnig 2017; listed by Koçak & Kemal 2013, 2014).

**Exorista segregata** (Rondani, 1859)

**Material.** Muğla province: Muğla, Kötekli (d), MT, leg. Pala, VII.2011, 1♀ [det. Lutovinovas]. – Published record: Burdur province (Avcı 2009).

**Distribution.** South Palaearctic (Southern Europe and Transcaucasia to Mongolia, see Herting & Dely-Draskovits 1993); also recorded from other parts of Turkey (Schimitschek 1944; Herting 1960, 1983b; Doğanlar 1975, 1982a; Gürses 1975; Kansu et al. 1986; Kilç & Alaoğlu 1996; Kara & Alaoğlu 2001; Avcı & Kara 2002; Avcı & Öğürulu 2002; Mückstein et al. 2004; Tschorsnig 2005; Avcı 2009; Akdağçık 2010; Bartsch & Tschorsnig 2010; Özbek & Çoruh 2012; Atay & Kara 2014; numerous rearing records quoted by Kara & Tschorsnig 2013; Tschorsnig 2017; listed by Koçak & Kemal 2009, 2013, 2014).

**Gonia bimaculata** Wiedemann, 1819

**Material.** Muğla province: Akyaka (i), salty meadow, YPT, leg. Barták & Kubík, 27.IV–1.V.2016, 3♂ [det. Lutovinovas]; Muğla, Kötekli (c), MT, same collectors, XI.2012–III.2013, 1♀ [det. Tschorsnig]. – Published records: Burdur province (Tuatay et al. 1972); Denizli province (Kavut et al. 1974).

**Distribution.** South Palaearctic–Afrotropical (Southern Europe and Northern Africa to China, see Herting & Dely-Draskovits 1993; O’Hara et al. 2009; South African Rep., Yemen, see Zeegers 2007; O’Hara & Cerretti 2016), also recorded from other parts of Turkey (Kavut et al. 1974; Gözüaçık et al. 2009; rearing records quoted by Kara & Tschorsnig 2003; Tschorsnig 2017).

**Gonia picea** (Robineau-Desvoidy, 1830)

**Material.** Muğla province: Muğla, Kötekli (c), MT, leg. Barták & Kubík, XI.2012–III.2013, 1♂, 1♀ [det. Tschorsnig].

**Distribution.** Holopalaearctic (throughout Europe and Middle East to China, Japan, see Herting & Dely-Draskovits 1993; O’Hara et al. 2009), recorded from Turkey (Kara & Bayram 1999; Sertkaya & Bayram 2005; single rearing record quoted by Tschorsnig 2017).

*Hebia flavipes* Robineau-Desvoidy, 1830

**Material.** Muğla province: Muğla, Kötekli (d), MT, leg. Pala, V.2016, 1♀ [det. Lutovinovas].

**Distribution.** West and East (Disjunct) Palaearctic (throughout Europe, Transcaucasia; Russian Far East, Japan, see Herting & Dely-Draskovits 1993; Ziegler & Shima 1996); first record from Turkey.

*Istocheta longicornis* (Fallén, 1810)


**Distribution.** West Palaearctic–South Siberian (throughout Europe; Asian Russia to The Yakutian Republic, see Herting & Dely-Draskovits 1993); first record from Turkey.

*Ligeria angusticornis* (Loew, 1847)


**Distribution.** West Palaearctic–South Siberian (throughout Europe, Transcaucasia, Israel; Asian Russia to Transbaikalia, see Herting & Dely-Draskovits 1993; Cerretti & Freidberg 2009); first record from Turkey.

**Lydella thompsoni** Herting, 1959


**Distribution.** Holarctic (Central and Southern Europe and Transcaucasia to Mongolia, Russian Far East, see Herting & Dely-Draskovits 1993; Ziegler & Shima 1996; introduced to Nearctic, see O’Hara & Wood 2004), also recorded from other parts of Turkey (Özdemir 1981; Kayapınar & Kornoşor 1992; Herting & Tschorsnig 1993; Kara & Özdemir 2000; Melan & Kara 2004; rearing records quoted by Kara & Tschorsnig 2003; Tschorsnig 2017).

[Masicera sphingivora* (Robineau-Desvoidy, 1830)]

**Material.** Published record only: Burdur province (Bayram 1999).

**Distribution.** Holopalaearctic (Central and Southern Europe and Transcaucasia to Mongolia, Japan, see

**Medina luctuosa** (Meigen, 1824)

**Material.** Muğla province: Akyaka (d), pasture, leg. Barták & Kubík, 16–27.IX.2012, 1♂, 1♀ [det. Tschorsnig].

**Distribution.** West Palaearctic–South Siberian–East Palaearctic (throughout Europe and Transcaucasia to Russian Far East, China, Japan, see Herting & Dely-Draskovits 1993; O’Hara et al. 2009; Zeegers 2017); first record from Turkey.

**Meigenia dorsalis** (Meigen, 1824)


**Distribution.** Holopalaearctic (throughout Europe and Transcaucasia to Russian Far East, China, Japan, see Herting & Dely-Draskovits 1993; O’Hara et al. 2009); first record from Turkey.

**Meigenia mutabilis** (Fallén, 1810)


**Distribution.** Holopalaearctic (throughout Europe and Middle East to Mongolia, China, see Herting & Dely-Draskovits 1993; O’Hara et al. 2009), recorded from Turkey (Doğanlar 1982a; Kara 1998; listed by Koçak & Kemal 2009, 2013, 2014).

**Metacemyia calloti** (Séguy, 1936)

**Material.** Published record only: Muğla province (Öncüer 1991).

**Distribution.** Holomediterranean–Middle Eastern–African tropical (Southern Europe and Northern Africa to Israel, UA Emirates, see Herting & Dely-Draskovits 1993; Cerretti & Freidberg 2009; Zeegers 2010; Yemen, Senegal, Tanzania, see Zeegers 2007; O’Hara & Cerretti 2016). This species has not been recorded from other parts of Turkey (single rearing record quoted by Kara & Tschorsnig 2003; Tschorsnig 2017).

**Nemorilla floras** (Fallén, 1810)

**Material.** Published record only: Burdur province (Zeki et al. 1999).

**Distribution.** West Palaearctic–South Siberian–East Palaearctic (throughout Europe and Transcaucasia to Russia, see Herting & Dely-Draskovits 1993), also recorded from other parts of Turkey (Kara 1998; Kara & Alaoglu 2002; rearing records quoted by Kara & Tschorsnig 2003; Tschorsnig 2017).

**Nemorilla maculosa** (Meigen, 1824)


**Ocytata pallipes** (Fallén, 1820)

**Material.** Muğla province: Muğla, Kötekli (d), MT, leg. Pala, V.2016, 1♂; 13 km NE of Muğla, pine wood, leg. Barták & Kubík, 2–3.V.2016, 1♂, 1♀ [all det. Lutovinovas].

**Distribution.** West and Central Palaearctic (throughout Europe and Transcaucasia to Israel, Tajikistan, see Herting & Dely-Draskovits 1993; Cerretti & Freidberg 2009); first record from Turkey.

**Pales pavida** (Meigen, 1824)

**Material.** Aydın province: 8 km S of Çine, river bank, YPT, leg. Barták & Kubík, 29.IV–1.V.2016, 1♂ [det. Lutovinovas]. – Muğla


*[Palesisa nudioculata](https://www.annalesdelecoentomologie.org/article-20232.html) Villeneuve, 1929

**Material.** Published records only: Denizli province (Öncüer et al. 1977, 1978).


**Paratryphera barbatula** (Rondani, 1859)

**Material.** Muğla province: Muğla, Kötekli (d), MT, leg. Pala, V.2016, 1♂ [det. Lutovinovas].

**Distribution.** Holopalaearctic (throughout Europe and Middle East to Russian Far East, China, Japan, see Herting & Dely-Draskovits 1993; Ö’Hara et al. 2009; Zeegers 2017), recorded from Turkey (Özdemir 1981; Çanakçıoğlu 1993; Kara 1998; Melan & Kara 2004).

**Pexopsis aprica** (Meigen, 1824)

**Material.** Muğla province: Akyaka (e), pasture, YPT, leg. Barták & Kubik, 28.14–8.V.2013, 2♀; 12 km SW of Muğla, on *Ferula communis*, same collectors, 23.V.2011, 2♂, 4♀ [all det. Tschorsnig].

**Distribution.** West Palaearctic–South Siberian–East Palaearctic (throughout Europe to China, see Herting & Dely-Draskovits 1993; Ö’Hara et al. 2009); first record from Turkey.

**Phebellia nigripalpis** (Robineau-Desvoidy, 1847)

**Material.** Muğla province: Muğla, Kötekli (b), SW + YPT, leg. Barták & Kubik, 16–27.V.2011, 1♂; Akyaka (e), pasture, SW, same collectors, 28.14–8.V.2013, 1♀ [all det. Tschorsnig].

**Distribution.** Holopalaearctic (throughout Europe and Transcaucasia to Japan, see Herting & Dely-Draskovits 1993); first record from Turkey.

**Phorocera assimilis** (Fallén, 1810)


**Distribution.** Holopalaearctic (throughout Europe and Transcaucasia to Russian Far East, China, Japan, see Herting & Dely-Draskovits 1993; Richter 2004; Ö’Hara et al. 2009); first record from Turkey.

**Phorocera grandis** (Rondani, 1859)

**Material.** Muğla province: Muğla, Kötekli (c), MT, leg. Barták & Kubik, XI.2012–III.2013, 1♂ [det. Tschorsnig].

**Distribution.** Holopalaearctic (throughout Europe and Transcaucasia to Russian Far East, China, Japan, see Herting & Dely-Draskovits 1993; Richter 2004; Ö’Hara et al. 2009), recorded from Turkey (Kara 2001a).

**Phryno vetula** (Meigen, 1824)

V.2013, 5♀[det. Tschorsnig]; 12 km SW of Muğla, on Ferula communis, same collectors, 23.V.2011, 1♂[det. Tschorsnig].

**Distribution.** West Palaearctic (throughout Europe and Transcaucasia, see Tachi 2012; previously might be wrongly assigned to East Palaearctic, see Zeegers 2017), recorded from Turkey (Doğanlar 1982a; Aksu 2005; listed by Koçak & Kemal 2009, 2013, 2014).

**[Phryxe caudata (Rondani, 1859)]**

**Material.** Published records only: Antalya province (Tosun 1977); Muğla province (Tschorsnig & Herting 1997; Özçankaya & Can 2004).

**Distribution.** Holomediterranean (Southern Europe, Western Africa, see Herting & Dely-Draskovits 1993), also recorded from other parts of Turkey (Tunçyurek-Soydanbay 1978; Herting 1983b; Avcı & Kara 2002; Avcı & Öğurlu 2002; Kanat & Türk 2002; Özdal 2002; Atay & Kara 2014; Battisti et al. 2015; rearing records quoted by Kara & Tschorsnig 2003; Tschorsnig 2017; listed by Koçak & Kemal 2013, 2014).

**[Phryxe vulgaris (Fallén, 1810)]**

**Material.** Published records only: Antalya province (Tosun 1977); Denizli province (Öncüer et al. 1977).

**Distribution.** Holarctic (throughout Europe and Middle East to Russian Far East, China, Japan, see Herting & Dely-Draskovits 1993; Richter 2004; O’Hara et al. 2009; autochthonous in Nearctic, see O’Hara & Wood 2004), also recorded from other parts of Turkey (Tuatay et al. 1972; Öncüer et al. 1977; Uzun 1987; Avcı & Özbebek 1990; Tschorsnig & Herting 1997; Kara & Özdemir 2000; Atay & Kara 2014; rearing records quoted by Kara & Tschorsnig 2003; Tschorsnig 2017).

**[Platymya antennata (Brauer & Bergenstamm, 1891)]**


**Distribution.** South Palaearctic (Southern Europe and Middle East to China, see Herting & Dely-Draskovits 1993; O’Hara et al. 2009); first record from Turkey.

**[Platymya fimbriata (Meigen, 1824)]**


**Distribution.** Holopalaearctic (throughout Europe and Middle East to Russian Far East, China, see Herting & Dely-Draskovits 1993; O’Hara et al. 2009; Zeegers 2017); first record from Turkey.

**Pseudoperichaeta nigrolineata (Walker, 1853)**

**Material.** Muğla province: Muğla, Kötekli (d), MT, leg. Pala, VI.2016, 1♂[det. Tschorsnig]. – Published record: Denizli province (Herting 1985).

**Distribution.** West Palaearctic–South Siberian–East Palaearctic (throughout Europe and Transcaucasia to Russian Far East, China, Japan, see Herting & Dely-Draskovits 1993; O’Hara et al. 2009; Zeegers 2017), also recorded from other parts of Turkey (Çanakçıoğlu 1959; Özdemir 1981; Herting & Tschorsnig 1993; Kara 1998; Melan & Kara 2004; rearing records quoted by Kara & Tschorsnig 2003; Tschorsnig 2017).

**[Pseudoperichaeta palesioidea (Robineau-Desvoidy, 1830)]**

**Material.** Published record only: Burdur province (Zeki et al. 1999).

**Distribution.** Holopalaearctic (throughout Europe and Middle East to Mongolia, China, see Herting & Dely-Draskovits 1993; O’Hara et al. 2009), also recorded from other parts of Turkey (Zeki et al. 1999; Kara & Alaoğlu 2002; Özbebek 2008; Tozlu & Çoruh 2011; rearing records quoted by Kara & Tschorsnig 2003; Tschorsnig 2017).

**[Smiditia amoena (Meigen, 1824)]**


**Distribution.** Holopalaearctic (throughout Europe and Transcaucasia to China, Japan, see Herting & Dely-Draskovits 1993; O’Hara et al. 2009); first record from Turkey.

**Spallanzania hebes (Fallén, 1820)**

**Material.** Burdur province: 5 km NE Yeşilova, leg. Halada, 6.VII.2006, 1♂[det. Tschorsnig].

**Distribution.** Holarctic–Oriental (throughout Europe and Northern Africa to Russian Far East, China, see Herting & Dely-Draskovits 1993; India, see O’Hara et al. 2009; autochthonous in Nearctic, see O’Hara & Wood 2004), recorded from Turkey (Doğanlar 1982a; Balkan et al.

*Spallanzania rectistylum (Macquart, 1847)


Distribution. Holomediterranean (Southern Europe and Northern Africa to Israel, see Herting & Dely-Draskovits 1993; Cerretti & Freidberg 2009); first record from Turkey.

Sturmia bella (Meigen, 1824)


Distribution. Holopalaearctic–Oriental–Australasian (throughout Europe and Middle East to China, Japan, see Herting & Dely-Draskovits 1993; Thailand, Melanesia, see Öncüer et al. 2009), recorded from Turkey (Herting 1960; Doğanlar 1975; Atak & Atak 1984; Kara 1998; Balkan et al. 2015; rearing records quoted by Kara & Tschorsnig 2003; Tschorsnig 2017).

*Thecocarcelia acutangulata (Macquart, 1850)


Distribution. West and East (Disjunct) Palaearctic–Afrotropical (Central and Southern Europe, Transcaucasia, Japan, see Herting & Dely-Draskovits 1993; DR Congo, Madagascar, see O’Hara & Cerretti 2016); first record from Turkey.

*Winthemia cruentata (Rondani, 1859)


Distribution. West Palaearctic–South Siberian–East Palaearctic (throughout Europe and Transcaucasia to Russian Far East, China, Japan, see Herting & Dely-Draskovits 1993; Ziegler & Shima 1996; O’Hara et al. 2009); first record from Turkey.

Winthemia quadripustulata (Fabricius, 1794)


Distribution. Holarctic (throughout Europe and Transcaucasia to Mongolia, China, see Herting & Dely-Draskovits 1993; O’Hara et al. 2009; autochthonous in Nearctic, see O’Hara & Wood 2004), recorded from Turkey (Atay et al. 2015).

Zaira cinerea (Fallén, 1810)


Distribution. Holopalaearctic (throughout Europe and Middle East to China, Japan, see Herting & Dely-Draskovits 1993; O’Hara et al. 2009), recorded from Turkey (Doğanlar 1982a; listed by Koçak & Kemal 2009, 2013, 2014).

Zenillia libatrix (Panzer, 1798)

Material. Published record only: Denizli province (Öncüer et al. 1978).

Distribution. West Palaearctic–South Siberian–East Palaearctic (throughout Europe and Transcaucasia to China, Japan, see Herting & Dely-Draskovits 1993; O’Hara et al. 2009), also recorded from other parts of Turkey (Soydanbay 1976; Öncüer et al. 1978; Kansu et al. 1986; Tschorsnig & Herting 1997; rearing records quoted by Kara & Tschorsnig 2003; Tschorsnig 2017).

Subfamily Tachininae

*Actia infantula (Zetterstedt, 1844)

Material. Muğla province: Akyaka (a), forest, SW, leg. Barták & Kubík, 30.IV–9.V.2013, 2♂; Toparlar (a), same collectors, 11.
**Bithia modesta** (Meigen, 1824)

**Material.** Antalya province: Side, sandy dunes, leg. Halada, 6.

**Distribution.** West Palaearctic–South Siberian (throughout Europe, Transcaucasia, Israel; Asian Russia to Transbaikalia, see Herting & Dely-Draskovits 1993; Cerretti & Freidberg 2009); first record from Turkey.

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**Graphogaster vestita** Rondani, 1868

**Material.** Burdur province: 5 km NE Yeşilova, leg. Halada, 6.

**Distribution.** Holomediterranean–Middle Eastern (Southern Europe to Transcaucasia, Israel, see Herting & Dely-Draskovits 1993; Cerretti & Freidberg 2009), recorded from Turkey (Kara et al. 2010; listed by Koçak & Kemal 2013, 2014).

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**Linnaemya comta** (Fallén, 1810)

**Material.** Published record only: Denizli province (Kavut et al. 1974).

**Distribution.** Holarctic–Oriental (throughout Europe and Middle East to Russian Far East, China, see Herting & Dely-Draskovits 1993; Richter 2004; India, see O’Hara et al. 2009; autochthonous in Nearctic, see O’Hara & Wood 2004); previously wrongly assigned to Afrotropics, see O’Hara & Cerretti 2016), also recorded from other parts of Turkey (Doğanlar 1982a; Kara 1999a; Balkan et al. 2015; rearing records quoted by Kara & Tschorsnig 2003; Tschorsnig 2017; listed by Koçak & Kemal 2009, 2013, 2014).

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**Linnaemya neavei** Curran, 1934


**Distribution.** East Mediterranean–Middle Eastern–Afrotropical (Southern Balkans to Israel, Iran, see Herting & Dely-Draskovits 1993; Cerretti & Ziegler 2004; Cerretti & Freidberg 2009; Gheibi et al. 2010; Mozambique, see O’Hara & Cerretti 2016), recorded from Turkey (Kara et al. 2007; single rearing record quoted by Tschorsnig 2017; listed by Koçak & Kemal 2013, 2014).

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**Linnaemya vulpina** (Fallén, 1810)

**Material.** Muğla province: Muğla, Kötekli (c), MT, leg. Barták & Kubik, XI.2012–III.2013, 2♂ [det. Tschorsnig].

**Distribution.** Holopalaearctic (throughout Europe and Middle East to China, see Herting & Dely-Draskovits...
**Loewia brevifrons (Rondani, 1856)**


*Distribution.* Holomediterranean–Middle Eastern (Southern Europe to Transcaucasia, see Herting & Dely-Draskovits 1993), recorded from Turkey (Herting 1984; Herting & Dely-Draskovits 1993; Kara 1999a).

**Loewia papei Cerretti, Lo Giucide & O’Hara, 2014**

*Material.* Published record only: Antalya province (Cerretti et al. 2014).

*Distribution.* East Mediterranean–Middle Eastern (incl. Southern Balkans, see Zeegers 2016), also recorded from other parts of Turkey (Cerretti et al. 2014; listed by Köçek & Kemal 2014).

**Lydina aenea (Meigen, 1824)**


*Distribution.* West Palaearctic–South Siberian–East Palaearctic (throughout Europe and Transcaucasia to Mongolia, see Herting & Dely-Draskovits 1993); first record from Turkey.

*Lypha dubia (Fallén, 1810)**

*Material.* Muğla province: Menteşe, leg. Civelek & Dursun, 7.X.2006, 7♂, 1♀; 5 km S of Muğla, edge of pine wood, on flowers, leg. Barták & Kubík, 6.V.2013, 1♂ [all det. Tschorsnig]. – Remark: the collector Dursun confirmed the date 7.X.2006 despite of the fact that two of the species collected at this day, *Lypha dubia* and *Wagneria punctans*, are known to fly in one generation in spring only.

*Distribution.* West Palaearctic–South Siberian–East Palaearctic (throughout Europe and Transcaucasia to Russian Far East, Japan, see Herting & Dely-Draskovits 1993; Ziegler & Shima 1996); first record from Turkey.

**Macquartia tenebricosa (Meigen, 1824)**


**Macquartia tessellum (Meigen, 1824)**


*Distribution.* Holopalaearctic–Oriental (Central and Southern Europe and Northern Africa to China, see Herting & Dely-Draskovits 1993; India, see O’Hara et al. 2009), recorded from Turkey (Doğanlar 1982b; Kara 1999a; listed by Köçek & Kemal 2009, 2013, 2014).

**Macquartia leucoptera (Meigen, 1824)**

**Distribution.** West Palaearctic–South Siberian (Central and Southern Europe; Asian Russia to Irkutsk Oblast, see Herting & Dely-Draskovits 1993); first record from Turkey.

*Microphthalmal europaea* Egger, 1860


**Distribution.** West and Central Palaearctic–South Siberian (Central and Southern Europe, Northern Africa, Saudi Arabia, Iran, Turkmenistan, Asian Russia, see Herting & Dely-Draskovits 1993; Davah 2011; Seyyedi-Sahebari et al. 2013), also recorded from other parts of Turkey (Balkan et al. 2015; single rearing record quoted by Tschorsnig 2017).

*Mintho rufuliventris* (Fallén, 1817)


**Distribution.** Holopalaearctic (throughout Europe and Middle East to Mongolia, see Herting & Dely-Draskovits 1993), recorded from Turkey (Ertürk 1963; Doğanlar 1982a; Herting & Tschorsnig 1993; Kara 1999a; rearing records quoted by Kara & Tschorsnig 2003; Tschorsnig 2017; listed by Koçak & Kemal 2009, 2013, 2014).

*Minthodes diversipes* (Strobl, 1899)

**Material.** Muğla province: Akyaka (e), pasture, leg. Barták & Kubik, 28.IV–8.V.2013, 1♂; Kizilyaka, on flowers, same collectors, 27.IV–4.V.2016, 3♂ [all det. Lutovinovas].

**Distribution.** Holomediterranean (Southern Europe and Northern Africa to Israel, see Cerretti & Freidberg 2009; previously wrongly assigned to Transcaucasia, see Gilasian et al. 2016), recorded from Turkey (Herting 1984; Herting & Dely-Draskovits 1993).

*Minthodes latifacies* Herting, 1983

**Material.** Muğla province: Muğla, Kötekli (e), MT, leg. Barták & Kubik, IV.2016, 1♀ [det. Lutovinovas].

**Distribution.** East Mediterranean–Middle Eastern–Afrotropical (Israel to Iran, see Herting & Dely-Draskovits 1993; Cerretti & Freidberg 2009; Gilasian et al. 2016; Yemen, see Zeegers 2007), recorded from Turkey (Gilasian et al. 2016).

*Nemoraea pellucida* (Meigen, 1824)


*Palmonia hermonensis* Kugler, 1972

**Material.** Muğla province: Muğla, Kötekli (d), MT, leg. Kavak, V.2015, 1♀ [det. Tschorsnig].

**Distribution.** East Mediterranean (incl. Israel, see Herting & Dely-Draskovits 1993; Cerretti & Freidberg 2009; Bulgaria: Barták, unpublished); first record from Turkey.

*Peribaea apicalis* Robineau-Desvoidy, 1863


**Distribution.** West Palaearctic–South Siberian (Central and Southern Europe, Transcaucasia, Israel, Asian Russia, see Herting & Dely-Draskovits 1993; Andersen 1996; Cerretti & Freidberg 2009); first record from Turkey.

*Peribaea tibialis* (Robineau-Desvoidy, 1851)


*Phytomyctera cingulata* (Robineau-Desvoidy, 1830)


Distribution. West Palaearctic (throughout Europe, see Herting & Dely-Draskovits 1993); first record from Turkey.

*Siphona pauciseta* Rondani, 1865

Material. Aydın province: 8 km S of Çine, river bank, leg. Barták & Kubík, 21.IX.2012, 1♂; 9 km S of Çine, river bank, same collectors, 2.V.2013, 1♀. – Muğla province: Akyaka (d), pasture, same collectors, 23–27.IX.2012 and 13–14.IX.2014, 2♂; Akyaka (e), pasture, SW, same collectors, 28.IV–8.V.2013, 1♂, 1♀; Akyaka (g), river bank and salty meadow, same collectors, 16–27.V.2011, 2♂, 1♀; Toparlar (a), SW + YPT, same collectors, 22–24.VI.2015, 1♂, 3♀; Toparlar (b), lowland forest, SW, same collectors, 5–7.V.2013, 1♂, 3♀ [all det. Tschorsnig].

Distribution. West Palaearctic–South Siberian–East Palaearctic (throughout Europe to Russian Far East, China, see Herting & Dely-Draskovits 1993; Andersen 1996; Ziegler & Shima 1996; O’Hara et al. 2009); first record from Turkey.

*Siphona rossica* Mesnil, 1961

Material. Aydın province: 8 km S of Çine, river bank, leg. Barták & Kubík, 10–12.IX.2014, 1♂, 2♀ [det. Tschorsnig]; same locality and collectors, YPT, 29.IV–1.V.2016, 4♂ [det. Lutovinovas]; same locality and collectors, SW, 29.IV–1.V.2016, 1♀ [det. Lutovinovas]. – Remarks: all specimens have the typical large dark spots at the base of the abdominal bristles, but only part of the specimens has dorsomarginal bristles on syntergite (1+2).

Distribution. West Palaearctic–South Siberian–East Palaearctic (throughout Europe and Northern Africa to Mongolia, see Herting & Dely-Draskovits 1993; Andersen 1996), recorded from Turkey (Andersen 1996).

**Tachina fera** (Linnaeus, 1761)


**Tachina lurida** (Fabricius, 1781)


Distribution. West Palaearctic (throughout Europe to Transcaucasia, Israel, see Herting & Dely-Draskovits 1993; Cerretti & Freidberg 2009); first record from Turkey.

**Tachina magnicornis** (Zetterstedt, 1844)


Distribution. Holopalaearctic (throughout Europe and Middle East to Russian Far East, China, Japan, see Herting & Dely-Draskovits 1993; O’Hara et al. 2009), recorded from Turkey (Steiner 1937; Kavut et al. 1974; Doğanlar 1975; Kara & Özdemir 2000; Kaya & Kovancı 2000; Gürkan 2010; Balkan et al. 2015; Lekin et al. 2016b; rearing records quoted by Kara & Tschorsnig 2003; Tschorsnig 2017; listed by Koçak & Kemal 2009, 2013, 2014).

**[Tachina praeceps]** Meigen, 1824

Material. Published record only: Burdur province (Öncüer et al. 1977).

*Triarthria setipennis* (Fallén, 1810)


**Distribution.** West and East (Disjunct) Palaearctic–Nearctic (throughout Europe and Middle East, see Herting & Dely-Draskovits 1993; Cerretti & Freidberg 2009; Seyyedi-Sahebari et al. 2013; Russian Far East, see Ziegler & Shima 1996; Zeegers 2017; introduced to Nearctic, see O’Hara & Wood 2004); first record from Turkey.

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*Trichactia pictiventris* (Zetterstedt, 1855)


**Distribution.** West Palaearctic (throughout Europe to Israel, see Herting & Dely-Draskovits 1993; Cerretti & Freidberg 2009); first record from Turkey.

Subfamily Dexiinae

*Athrycia trepida* (Meigen, 1824)


**Distribution.** Holopalaearctic (throughout Europe and Middle East to Russian Far East, China, see Herting & Dely-Draskovits 1993; Ziegler & Shima 1996; O’Hara et al. 2009), recorded from Turkey (Seyyedi-Sahebari et al. 2014).

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*Blepharomyia pagana* (Meigen, 1824)

**Material.** Muğla province: Muğla, Kötekli (b), SW + YPT, leg. Barták & Kubík, 29.IV–10.V.2013, 1 ♀; Muğla, Kötekli (d), MT, leg. Kavak, IV.2015, 1 ♀ [all det. Tschorsnig].

**Distribution.** West Palaearctic–South Siberian (throughout Europe, Transcaucasia; Asian Russia to Transbaikalia, see Herting & Dely-Draskovits 1993; Cerretti & Freidberg 2009); first record from Turkey.

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*Campylocheta inepta* (Meigen, 1824)


**Distribution.** West Palaearctic–South Siberian–East Palaearctic (throughout Europe and Middle East to China, see Herting & Dely-Draskovits 1993; Ziegler & Shima 1996; O’Hara et al. 2009; Seyyedi-Sahebari et al. 2014), also recorded from other parts of Turkey (Lekin et al. 2016a).

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*Dexia rustica* (Fabricius, 1775)


**Distribution.** West Palaearctic–South Siberian–East Palaearctic (throughout Europe and Middle East to China, see Herting & Dely-Draskovits 1993; Ziegler & Shima 1996; O’Hara et al. 2009; Seyyedi-Sahebari et al. 2014), also recorded from other parts of Turkey (Lekin et al. 2016a).

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*Eriothrix prolixa* (Meigen, 1824)

**Material.** Muğla province: 15 km SW of Muğla, damp valley near brook, leg. Barták & Kubík, 23.V.2011, 1 ♀ [det. Lutovinovas].
**Eriothrix rufomaculata** (De Geer, 1776)


**Distribution.** Holopalaearctic (throughout Europe and Middle East; Japan, see Herting & Dely-Draskovits 1993; Cerretti & Freidberg 2009). This species has not been recorded from other parts of Turkey.

**Hypovoria hilaris** (Villeneuve, 1912)


**Distribution.** Holomediterranean (Southern Europe and Northern Africa to Israel, see Herting & Dely-Draskovits 1993; Cerretti & Freidberg 2009), recorded from Turkey (Herting 1984; Öncier 1991; Herting & Dely-Draskovits 1993; listed by Koçak & Kemal 2013, 2014).

**Hypovoria pilibasis** (Villeneuve, 1922)

**Material.** Muğla province: Topalar (c), leg. Civelek & Dursun, 30.V.2009, 1♂ [det. Tschorsnig].

**Distribution.** East Mediterranean (Southern Balkans to Israel, see Herting & Dely-Draskovits 1993; Cerretti & Freidberg 2009), recorded from Turkey (Mückstein et al. 2004; single rearing record quoted by Tschorsnig 2017; listed by Koçak & Kemal 2013, 2014).

**Microsoma exiguum** (Meigen, 1824)


**Distribution.** West and East (Disjunct) Palaearctic (throughout Europe and Middle East; Japan, see Herting & Dely-Draskovits 1993; Cerretti & Freidberg 2009; Seyyedi-Sahebari et al. 2014), recorded from Turkey (Aeschlimann 1990).

**Periscepsia carbonaria** (Panzer, 1798)


**Distribution.** Holopalaearctic–Palaeotropical (widespread, but seems to represent a species complex, and its distribution should be treated with a caution, see O’Hara & Cerretti 2016), also recorded from other parts of Turkey (Khan & Özer 1984; Kansu et al. 1986; Bayram 1987; Bayram & Kılıç 1987, 1991; Kara & Özdemir 2000; Lekin et al. 2016b; rearing records quoted by Kara & Tschorsnig 2003; Tschorsnig 2017).

**Voria ruralis** (Fallén, 1810)

*Wagneria cunctans* (Meigen, 1824)

**Material.** Aydın province: Ortaklar, leg. Civelek & Dursun, 2. IV.2010, 1♀. – Muğla province: Menteşe, same collectors, 7. X.2006, 1♀; Muğla, Kötekli (a), YPT, leg. Dursun, 8. IV.2012, 1♂; Muğla, Kötekli (b), MT, same collector, XII.2013–II.2014, 1♂; same locality and collector, YPT, IV.–V.2014, 1♂, 2♀; Muğla, Kötekli (c), MT, leg. Barták & Kubík, XI.2012–III.2013, 7♂; Muğla, Kötekli (d), MT, leg. Kavak, IV.2015, 3♂, 1♀ [all det. Tschorsnig]. – **Remark:** see above under *Lypha dubia*.

**Distribution.** West Palaearctic (Central and Southern Europe to Israel, see Herting & Dely-Draskovits 1993; Cerretti & Freidberg 2009); first record from Turkey.

*Zeuxia cinerea* Meigen, 1826


**Distribution.** West and Central Palaearctic (Central and Southern Europe and Northern Africa to Iran, Kazakhstan, see Herting & Dely-Draskovits 1993; Seyyedi-Sahebari et al. 2014), recorded from Turkey (Kara 1999b; Richter et al. 2002; Korkmaz 2007; Lekin et al. 2016b; rearing records quoted by Tschorsnig 2017; listed by Koçak & Kemal 2014).

*Zeuxia subapennina* Rondani, 1862


**Distribution.** West and Central Palaearctic–South Siberian (Central and Southern Europe, Transcaucasia, Israel, Tajikistan; Asian Russia to The Altai Republic, see Herting & Dely-Draskovits 1993; Cerretti & Freidberg 2009); recorded from Turkey (Kara 1999b).

**Subfamily Phasiinae**

*Bessera lateritia* (Meigen, 1824)


**Distribution.** West and Central Palaearctic (Central and Southern Europe and Middle East to Uzbekistan; see Herting & Dely-Draskovits 1993; Cerretti & Freidberg 2009; Seyyedi-Sahebari et al. 2016), recorded from Turkey (Kara et al. 2010; listed by Koçak & Kemal 2013, 2014).

*Catharosia albisquama* (Villeneuve, 1932)


**Distribution.** West Palaearctic (Central and Southern Europe to Israel, see Herting & Dely-Draskovits 1993; Cerretti & Freidberg 2009); first record from Turkey.

*Catharosia claripennis* Kugler, 1977

**Material.** Muğla province: Muğla, Kötekli (d), MT, leg. Kavak, V.2015, 1♀ [det. Tschorsnig].

**Distribution.** Holomediterranean–Middle Eastern (Israel, Iran, see Herting & Dely-Draskovits 1993; Cerretti & Freidberg 2009; Gilasian et al. 2017; France, Azerbaijan: the latter two country records based on material in SMNS); first record from Turkey.

*Catharosia pygmaea* (Fallén, 1815)


**Distribution.** West Palaearctic–South Siberian–East Palaearctic (throughout Europe and Middle East to Mongolia, see Herting & Dely-Draskovits 1993), recorded from Turkey (Atay 2017).

*Clairvillia biguttata* (Meigen, 1824)


**Distribution.** West Palaearctic–South Siberian–East Palaearctic (Central and Southern Europe and Middle East to Mongolia, Russian Far East, see Herting & Dely-Draskovits 1993; Zeegers 2017), recorded from Turkey (Kara 1998; Kara & Alaoğlu 1999; Aksu 2005).

*Clairvillia pninae* Kugler, 1971

**Material.** Muğla province: Muğla, Kötekli (d), MT, leg. Pala, V.2016, 2♂; Muğla, Kötekli (e), MT, leg. Barták & Kubík, XI.2015–IV.2016, 4♀ [all det. Lutovinovas].

**Distribution.** Holomediterranean–Middle Eastern (Southern Europe to Israel, Iran, see Herting & Dely-Draskovits 1993;
Cerretti & Freidberg 2009; Seyyedi-Sahebari et al. 2016), recorded from Turkey (Kara 2001a; Kara & Aksu 2007).

**Clytomya ?dupuisi** Kugler, 1971


**Distribution.** Holomediterranean (Southern Europe to Israel, see Herting & Dely-Draskovits 1993; Cerretti & Freidberg 2009), also recorded from other parts of Turkey (Kara 1998; Kara & Alaoglu 1999; Karsavuran & Kara 2003; rearing records quoted by Kara & Tschorsnig 2003; Tschorsnig 2017).

**Clytomya sola** (Rondani, 1861)

**Material.** Muğla province: Akyaka (c), forest, SW, leg. Barták & Kubik, IV.2016, 1♂ [det. Lutovinovas].

**Distribution.** Holomediterranean–Middle Eastem (Southern Europe to Transcaucasia, Iran, Israel, see Herting & Dely-Draskovits 1993; Cerretti & Freidberg 2009; Seyyedi-Sahebari et al. 2016); recorded from Turkey (Mesnil 1971; Tuatay et al. 1972; Karsavuran & Kara 2003; Tschorsnig 2005; rearing records quoted by Kara & Tschorsnig 2003; Tschorsnig 2017).

**Clytomya auriiceps** (Meigen, 1838)


**Distribution.** West Palearctic–South Siberian (throughout Europe, Northern Africa, Middle East, see Herting & Dely-Draskovits 1993; Cerretti & Freidberg 2009; Gilaskan et al. 2013; Asian Russia, see Richter 2004), recorded from Turkey (Kara 1998; Kara & Alaoglu 1999; Aksu 2005; Korkmaz 2007; Balkan et al. 2015; Lekin et al. 2016b; rearing records quoted by Kara & Tschorsnig 2003; Tschorsnig 2017).

**Clytomya bicolor** (Olivier, 1812)


**Distribution.** West and Central Palearctic (Central and Southern Europe and Middle East to Kazakhstan, Uzbekistan, see Herting & Dely-Draskovits 1993; Gilaskan et al. 2013), recorded from Turkey (Herting 1983a; Kara 1998; Kara & Alaoglu 1999; Korkmaz 2007; Lekin et al. 2016b; single rearing record quoted by Kara & Tschorsnig 2003; Tschorsnig 2017).

**Clytomya brassicaria** (Fabricius, 1775)


**Distribution.** Holopalaearctic (throughout Europe and Northern Africa to Russian Far East, China, Japan, see Herting & Dely-Draskovits 1993; Sun & Marshall 1995; O’Hara et al. 2009; Zeegers 2017), also recorded from other parts of Turkey (Doğanlar 1982b; Karsavuran 1986; Kara 1998; Aksu 2005; Atay & Kara 2014; Lekin et al. 2016b; rearing records quoted by Kara & Tschorsnig 2003; Tschorsnig 2017; listed by Koçak & Kemal 2009, 2013, 2014).

*Clytomya crassa* (Loew, 1845)

**Material.** Muğla province: Topalar (c), leg. Çivelek & Dursun, 26.IV.2006 and 30.V.2009, 6♂, 1♀ [det. Tschorsnig].

**Distribution.** West Palearctic–South Siberian (Central and Southern Europe, Middle East; Asian Russia to
Transbaikalia, see Herting & Dely-Draskovits 1993; Cerretti & Freidberg 2009; Giliasan et al. 2013; first record from Turkey.

*Cylindromyia hermonensis Kugler, 1974


Distribution. Holomediterranean (Southern Europe to Israel, see Herting & Dely-Draskovits 1993; Cerretti & Freidberg 2009); first record from Turkey.

Cylindromyia pilipes (Loew, 1844)


Distribution. West and Central Palearctic–South Siberian (throughout Europe, Northern Africa, Middle East, Uzbekistan; Asian Russia to Krasnoyarsk Krai, see Herting & Dely-Draskovits 1993; Cerretti & Freidberg 2009; Giliasan et al. 2013), recorded from Turkey (Herting 1984; Herting & Dely-Draskovits 1993).

Cylindromyia pusilla (Meigen, 1824)


Distribution. West Palearctic–South Siberian–East Palearctic (throughout Europe and Middle East to Mongolia, Russian Far East, see Herting & Dely-Draskovits 1993; Richter 2004), recorded from Turkey (Herting 1984; Herting & Dely-Draskovits 1993; Korkmaz 2007).

*Cylindromyia rufifrons (Loew, 1844)


Distribution. West and Central Palearctic (Central and Southern Europe and Middle East to Uzbekistan, Tajikistan, see Herting & Dely-Draskovits 1993; Giliasan et al. 2013); first record from Turkey.

Cylindromyia rufipes (Meigen, 1824)


Distribution. Holomediterranean–Middle Eastern (Southern Europe to Iran, Saudi Arabia, UA Emirates, see Herting & Dely-Draskovits 1993; Gheibi et al. 2008; Zeegers 2010; Giliasan et al. 2013), also recorded from other parts of Turkey (Kara 2001a; Korkmaz 2007).

Ectophasia crassipennis (Fabricius, 1794)


Distribution. West Palearctic–South Siberian–East Palearctic (throughout Europe and Transcaucasia to Russian Far East, China, Japan, see Herting & Dely-Draskovits 1993; Richter 2004; O’Hara et al. 2009); recorded from Turkey (Zwölfer 1932; Lodos 1953, 1986; Şimşek et al. 1994; Atay & Kara 2014; Duman & Sertkaya 2015; Duman et al. 2015; Lekin et al. 2016b; rearing records quoted by Kara & Tschorsnig 2003; Tschorsnig 2017; listed by Koçak & Kemal 2013, 2014).

Ectophasia oblonga (Robineau-Desvoidy, 1830)


Distribution. West Palearctic (Central and Southern Europe to Transcaucasia, Iran, Israel, see Herting & Dely-Draskovits 1993; Cerretti & Freidberg 2009; Seyyedi-Sahebari et al. 2016), recorded from Turkey (Dupuis 1963; Herting 1984; Herting & Dely-Draskovits 1993; Herting &

**Eliozeta helluo** (Fabricius, 1805)


**Elomya lateralis** (Meigen, 1824)

**Material.** Burdur province: 5 km NE Yeşilova, leg. Halada, 6. VII.2006, 1♂. – Muğla province: Muğla, Kötekli (d), YPT, leg. Barták & Kubík, 26–27.VI.2015, 1♂; 11 km E of Muğla, pine wood + meadow, same collectors, 23.V.2011, 1♀ [all det. Tschorsnig].


**Eulabidogaster setifacies** (Rondani, 1861)

**Material.** Muğla province: Muğla, Kötekli (d), MT, leg. Kavak, V.2015, 1♂ [det. Tschorsnig].

**Distribution.** West and Central Palaearctic–South Siberian (Central and Southern Europe, Middle East, Uzbekistan; Asian Russia to Krasnoyarsk Krai, see Herting & Dely-Draskovits 1993; Cerretti & Freidberg 2009; Giliasian et al. 2014), recorded from Turkey (Kara 1998; Kara & Alaoğlu 1999; Korkmaz 2007; Atay & Kara 2014; single rearing record quoted by Tschorsnig 2017).

**Gymnosoma clavatum** (Robedendorf, 1947)


**Gymnosoma nitens** (Meigen, 1824)


**Distribution.** Holopalaearctic (throughout Europe and Transcaucasia to Mongolia, Russian Far East, see Herting & Dely-Draskovits 1993; Richter 2004), recorded from Turkey (Kara 2001a; Korkmaz 2007).

**Gymnosoma rungsi** (Mesnil, 1952)

**Material.** Antalya province: Side, sandy dunes, leg. Halada, 6. X.2011, 1♂. – Burdur province: 20 km SW Burdur, same collector, 7.VII.2006, 1♀ [all det. Tschorsnig].

**Distribution.** West and Central Palaearctic (Central and Southern Europe and Northern Africa to Uzbekistan, Tajikistan, see Herting & Dely-Draskovits 1993), recorded from Turkey (Zimín 1966; Mesnil 1971; Tuatay et al. 1972; Herting 1984; Herting & Dely-Draskovits 1993; Herting & Tschorsnig 1993; Memiçoğlu et al. 1994; rearing records quoted by Kara & Tschorsnig 2003; Tschorsnig 2017).
**Leucostoma antheracinum** (Meigen, 1824)

**Material.** Muğla province: Akyaka (a), forest, SW, leg. Barták & Kubík, 30.IV–9.V.2013, 1♂, 1♀; Akyaka (d), pasture, same collectors, 8–14.IX.2014, 2♂, Akyaka (g), river bank + salty meadow, same collectors, 16–27.V.2011, 1♂; Muğla, Kötekli (d), MT, leg. Kavak, V.2015, 1♀ [all det. Tschorsnig].

**Distribution.** West Palaearctic–South Siberian–East Palaearctic (Central and Southern Europe and Middle East to Mongolia, see Herting & Dely-Draskovits 1993; Gilasian et al. 2014); first record from Turkey. – Remark: Turkish records by Kara (1998) and Kara & Alaoğlu (1999) were misidentifications of *L. crassum* Kugler (revised by Tschorsnig).

**Phasia obesa** (Fabricius, 1798)


**Distribution.** Holopalaearctic–Oriental (throughout Europe and Northern Africa to Russian Far East, China, Japan, see Herting & Dely-Draskovits 1993; Richter 2004; O’Hara et al. 2009; India, see Sun & Marshall 2003), recorded from Turkey (Kara 1998; Kara & Alaoğlu 1999; Sun & Marshall 2003).

**Leucostoma engeddense** Kugler, 1966

**Material.** Aydın province: 8 km S of Çine, river bank, leg. Barták & Kubík, 10–12.IX.2014, 1♀ [det. Tschorsnig]. – Muğla province: Muğla, Kötekli (c), MT, same collectors, XI.2012–III.2013, 1♀ [det. Tschorsnig]; Muğla, Kötekli (e), MT, same collectors, IX.2015, 2♀ [det. Lutovinovas].

**Distribution.** Holomediterranean–Middle Eastern–Afrotropical (Southern Europe and Northern Africa to Iran, UAE Emirates, see Herting & Dely-Draskovits 1993; Gheibi et al. 2008; Zeegers 2010; Gilasian et al. 2014; Seyyedi-Sahebari et al. 2016; South African Rep., see O’Hara & Cerretti 2016), recorded from Turkey (Kara 2002).

**Leucostoma simplex** (Fallén, 1815)


**Phasia mesnili** (Draber-Mońko, 1965)


**Distribution.** South Palaearctic–Afrotropical (Southern Europe and Northern Africa to Russian Far East, China, see Herting & Dely-Draskovits 1993; Richter 2004; O’Hara et al. 2009; Yemen, see Zeegers 2007), recorded from Turkey (Kara 1998; Kara & Alaoğlu 1999; Sun & Marshall 2003; Korkmaz 2007).

**Phasia pusilla** Meigen, 1824


**Distribution.** Holopalaearctic (throughout Europe and Northern Africa to Russian Far East, China, Japan, see Herting & Dely-Draskovits 1993; Richter 2004; O’Hara et al. 2009), recorded from Turkey (Kara 1998; Kara & Alaoğlu 1999; Korkmaz 2007).

**Phasia subcoleoptrata** (Linnaeus, 1767)

**Material.** Published records only: Antalya province (Şimşek et al. 1994; Keçeci et al. 2007); Burdur province (Keçeci et al. 2007).

2003; Gözüaçık et al. 2010; Gün 2010; Atay & Kara 2014; Duman & Sertkaya 2015; Duman et al. 2015; numerous rearing records quoted by Kara & Tschorsnig 2003; Tschorsnig 2017).

**Phiasia venturii** (Draber-Moňko, 1965)


**Distribution.** Holomediterranean (Southern Europe and Northern Africa, see Herting & Dely-Draskovits 1993); first record from Turkey.

**Weberia digramma** (Meigen, 1824)


**Distribution.** West and Central Palaearctic (Central and Southern Europe and Middle East to Turkmensistan, see Herting & Dely-Draskovits 1993; Gilasian et al. 2014); first record from Turkey.

**Xysta holosericea** (Fabricius, 1805)

**Material.** Burdur province: 20 km SW Burdur, leg. Halada, 7. VII.2006, 1♀, 1♂; 5 km NE Yeşilova, same collector, 6. VII.2006, 2♂ [all det. Tschorsnig].

**Distribution.** West Palaearctic (Central and Southern Europe to Israel, Iran, see Herting & Dely-Draskovits 1993; Cerretti & Freidberg 2009; Gilasian et al. 2017), recorded from Turkey (Kara et al. 2010; listed by Koçak & Kemal 2013, 2014).

**Discussion**

In the present paper, all credible and available data about the occurrence of this family from southwestern provinces of Turkey are summarized. Altogether, 139 tachinid species were identified from the material collected by some authors of this publication. Several specimens were impossible to identify with certainty to species level, often because of the condition of the material. This material is not listed here, suggesting that the real number of collected species might be larger. Also, we found some variety in the shape of the process of the male syncercus in Clytiumya dupuisi, from short triangular (as figured in Kugler’s description) to digitiform as in the very near Clytiumya sola, and therefore, a further study is recommended to confirm identities of these specimens. Another 17 species from the study area are known only from published records; the known fauna of Tachinidae of southwestern Turkey thus comprises 156 species (see Acatay 1959; Tuatay et al. 1972; Kavut et al. 1974; Öncüer et al. 1977, 1978; Tosun 1977; Herting 1985; Öncüer 1991; Herting & Tschorsnig 1993; Şimşek et al. 1994; Tschorsnig & Herting 1997; Bayram 1999; Zeki et al. 1999; Kara 2001a; Karsavuran & Kara 2003; Özçankaya & Can 2004; Keçeci et al. 2007; Avci 2009; Bystrowski 2011; Karagöz et al. 2011; Cerretti et al. 2014; Seyyedi-Sahebari et al. 2014; Tschorsnig 2017).

Different habitats (woods, pastures, meadows) and altitudes above the sea level (1–1310 m) are selected to represent the study area (see Table 1). Most of the studied localities originate from the Muğla province (31 localities), followed by Aydın (three), Burdur (two), Denizli and Antalya (one for each) provinces. Number of recorded species significantly correlates with number of localities in each of the provinces. Thus, most of the species are recorded from the Muğla province (133 species), followed by Aydın (21), Burdur (11), Denizli and Antalya (two for each) provinces. Different proportion of recorded species in provinces are provided from published sources; however, because of the poor knowledge of this family in southwestern Turkey (32 species previously recorded) they do not significantly affect the combined data – most of the species are still known from the Muğla province (135 species), followed by Burdur (25), Aydın (23), Antalya (12) and Denizli (10) provinces. The following 21 species (13.5%) recorded in this study (including published sources) are not recorded in the Muğla province, and originate from the adjacent provinces: Drino gali (Burdur), Exorista nova (Antalya), Masicera sphingivora (Burdur), Nemorilla floralis (Burdur), Palesisa nudioculata (Denizli), Phryxe vulgaris (Antalya, Denizli), Pseudoperichaeta pale-sioidea (Burdur), Spallanzania hebes (Burdur), Townsendiellomyia nidicola (Denizli), Zenillia libatrix (Denizli), Claucisella puella (Burdur), Linnaeum comta (Denizli), Loewia crassipes (Antalya), L. papei (Antalya), Siphona rossica (Aydın), Tachina praeceps (Burdur), Cytrophloeobius ruricol (Antalya, Burdur), Cylindromyia pilipes (Burdur), Gymnosoma rungsi (Antalya), Phasia subcoleoptrata (Antalya, Burdur), and Xysta holosericea (Burdur). However, the Muğla province is not a large area and the level of knowledge regarding the fauna of this and other provinces of Turkey remain insufficient; this suggests that those species recorded from adjacent provinces might also live in the Muğla province, and vice versa, most of the species recorded from the Muğla province might also live in adjacent provinces, and possibly will be recorded there in the future.

Species which are recorded from southwestern Turkey (including previously published sources) may be separated into 29 chorological categories (Figure 3), consisting of two larger types of distribution – Northern–Southern and Southern types. We diagnosed 122 species (78.2%) of the Northern–Southern type, which are more eurybiontic, and
also present in northern parts of the Palaearctic region. The following 19 chorological categories belong here: Nearly Cosmopolitan – 2 species (1.3%); Holarctic–Palaearctic–Australasian – 1 species (0.6%); Holarctic–Oriental – 3 species (1.9%); Holopalaearctic–Palaearctic–Australasian – 1 species (0.6%); Holopalaearctic–Afrotropical – 3 species (1.9%); Holopalaearctic–Afrotropical–Oriental–Australasian – 1 species (0.6%); Holopalaearctic–Oriental – 3 species (1.9%); Holopalaearctic – 33 species (21.2%); West Palaearctic–South Siberian–East Palaearctic – 25 species (16.0%); West and East (Disjunct) Palaearctic–Afrotropical – 1 species (0.6%); West and East (Disjunct) Palaearctic–Nearctic – 1 species (0.6%); West and East (Disjunct) Palaearctic – 6 species (3.8%); West and Central Palaearctic–South Siberian – 4 species (2.6%); West and Central Palaearctic – 9 species (5.8%); West Palaearctic–South Siberian–Nearctic – 1 species (0.6%); West Palaearctic–South Siberian – 11 species (7.1%); West Palaearctic – 11 species (7.1%). Another 34 species (21.8%) comprise the Southern type, which are distinctly thermophilic, and therefore, are absent in northern parts of the Palaearctic region. The following 10 chorological categories are distinguished: South Palaearctic–Afrotropical – 2 species (1.3%); South Palaearctic – 4 species (2.6%); Holomediterranean–Middle Eastern–Afrotropical – 4 species (2.6%); Holomediterranean–Middle Eastern–Central Asian – 1 species (0.6%); Holomediterranean–Middle Eastern – 7 species (4.5%); Holomediterranean – 7 species (4.5%); South and East Mediterranean–Middle Eastern–Central Asian – 2 species (1.3%); East Mediterranean–Middle Eastern–Afrotropical – 2 species (1.3%); East Mediterranean–Middle Eastern – 2 species (1.3%); East Mediterranean – 3 species (1.9%). None of the species recorded are endemic in Turkey.

The following 52 tachinid species (33.3%) have been recorded for the first time for Turkey: *Acemya rufitibia*, *Atylomyia loewii*, *Blepharipa schineri*, *Brachicheta petiolata*, *Carcelia bombylans*, *C. lucorum*, *Ceracia mucronifera*, *Dolichocolon paradoxum*, *Erycesta caudigera*, *Exorista kugleri*, *Hebia flavipes*, *Istocheta longicornis*, *Ligeria angusticornis*, *Medina luctuosa*, *Meigenia dorsalis*, *Oeytata pallipes*, *Pexopsis aprica*, *Phebellia nigripalpis*, *Phorocera assimilis*, *Platymya antennata*, *P. fimbriata*, *Smitidia amoena*, *Spallanzania rectistylum*, *Thecocarcelia acutangulata*, *Periscepsia carbonaria* (Panzer) possibly represents a species complex, and its distribution should be treated with caution.
Winthemia cruentata, Actia infantula, Ceromya bicolor, C. dorsi-gera, Clausidella suturata, Lydina aenea, Lypha dubia, Melisoneura leucotera, Palmonia hermonensis, Peribea apicalis, Phytomyza cingulata, Siphona pauci-seta, Tachina lurida, Triarthria setipennis, Trichactia pictivertis, Blepharomyia pagana, Campylocheta inepta, C. latigena, C. praecox, Wagneria cunctans, Catharosia albisquama, C. claripennis, Cylindromyia crassa, C. hermonensis, C. rufi-frons, Leucostoma anthracinum, Phasia venturi, and Weberia digramma. It should be noted that previous Turkish records of L. anthracinum by Kara (1998) and Kara & Alaoglu (1999) were misidentifications of L. crassum (revised by Tschorsnig). In addition to the new Turkish records, the following three species have not been recorded from other parts of Turkey: Metaceniaylla calloti, Loewia crassipes, and Hypovoria hilaris, but only the last one was collected during our survey, and data about the other two species are taken from the literature (i.e. Öncüer 1991; Bystrowski 2011).

The present publication represents a contribution to the tachinid fauna of southwestern Turkey. Many tachinids are termophilic parasitoids and the Mediterranean region is very rich in these insects. Further studies involving more diverse habitats and collecting methods would surely reveal additional species. The total tachinid fauna of this area may reach several hundreds of species.

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