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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 supergroups: 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'Aydın, 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 réparties en 2 supergroupes : 122 espèces (78,2%) sont plus eurybiontiques et également réparties dans les parties septentrionales de la région paléarctique (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 Calypttrata 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 (Inclán et al. 2014, 2015, 2016).

About 316 tachinid species are currently known from Turkey, including the newly recorded ones dealt with in this paper (see records quoted by Koçak & Kemal 2009, 2013, 2014; as well as numerous omitted sources: Lodos 1952, 1961, 1986; Çanakçıoğlu 1959, 1993; Herting 1960, 1983a, 1983b, 1984, 1985, 1989; Brown 1962; Dupuis 1963; Zimin 1966; Mesnil 1971; Tuatay et al. 1972; Kavut et al. 1974; Doğanlar 1975; Soydanbay 1976; Öncüler et al. 1977, 1978; Tunçyurck-Soydanbay 1978; Dıkyar 1981; Özdemir 1981; Atak & Atak 1984; Khan & Özer 1984; Kansu et al. 1986; Bayram 1987, 1999; Bayram & Kiliñçer 1987, 1991; Uzun 1987; Aeschlimann 1990; Avcı & Özbek 1990; Öncüler 1991;

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Kayapınar & Kornoşor 1992; Herting & Dely-Draskovits 1993; Herting & Tschorsnig 1993; Memişoğlu & Özer 1994; Memişoğlu et al. 1994; Şimşek et al. 1994; Öncüer & Kıvanç 1995; Andersen 1996; Kıvanç 1996; Kara 1998, 1999a, 1999b, 2001a, 2001b, 2002; Tschorsnig & Herting 1997, 1998; Kara & Alaoğlu 1999, 2001, 2002; Kara & Bayram 1999; Zeki et al. 1999; Anay 2000; Kara & Özdemir 2000; İslamoğlu & Kornoşor 2003, 2007; Kara & Tschorsnig 2003; Karsavuran & Kara 2003; Sun & Marshall 2003; Melan & Kara 2004; Mückstein et al. 2004; Aksu 2005; Bolu & Çınar 2005; Sertkaya & Bayram 2005; Tschorsnig 2005; Bolu & Kara 2006; Kara & Aksu 2007; Keçeci et al. 2007; Korkmaz 2007; Özbek 2008; Gözüaçık et al. 2009, 2010; Gün 2010; Karagöz et al. 2011; Tozlu & Çoruh 2011; and most recent supplements: Atay & Kara 2014; Seyyedi-Sahebari et al. 2014; Atay et al. 2015; Balkan et al. 2015; Bolu et al. 2015; Duman & Sertkaya 2015; Duman et al. 2015; Gilasian et al. 2016; Lakin et al. 2016a, 2016b; Atay 2017; Tschorsnig 2017); however, the real number is most likely twice this figure, when taking into account the number of known species from neighboring areas (e.g. the Balkans, see Hubenov 2008). Turkey is a large country that covers several biogeographic regions (Mediterranean, Black Sea and Anatolian), which makes it interesting from the zoogeographic point of view. Altogether, 32 species of this large family have currently been known from the Muğla, Aydın, Burdur, Denizli and Antalya provinces of Turkey (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; Avcı 2009; Bystrowski 2011; Karagöz et al. 2011; Cerretti et al. 2014; Seyyedi-Sahebari et al. 2014; Tschorsnig 2017). The aim of the present publication is to enrich knowledge of the tachinid fauna of Turkey by contributing to the fauna of poorly studied southwestern areas, representing the Mediterranean biogeographic region.

#### 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; Papp 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: I – 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 Tschorsnig. Several specimens of *Siphona*, *Estheria*, *Gymnosoma*, *Phasia*, and *Leucostoma*, and one specimen each 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

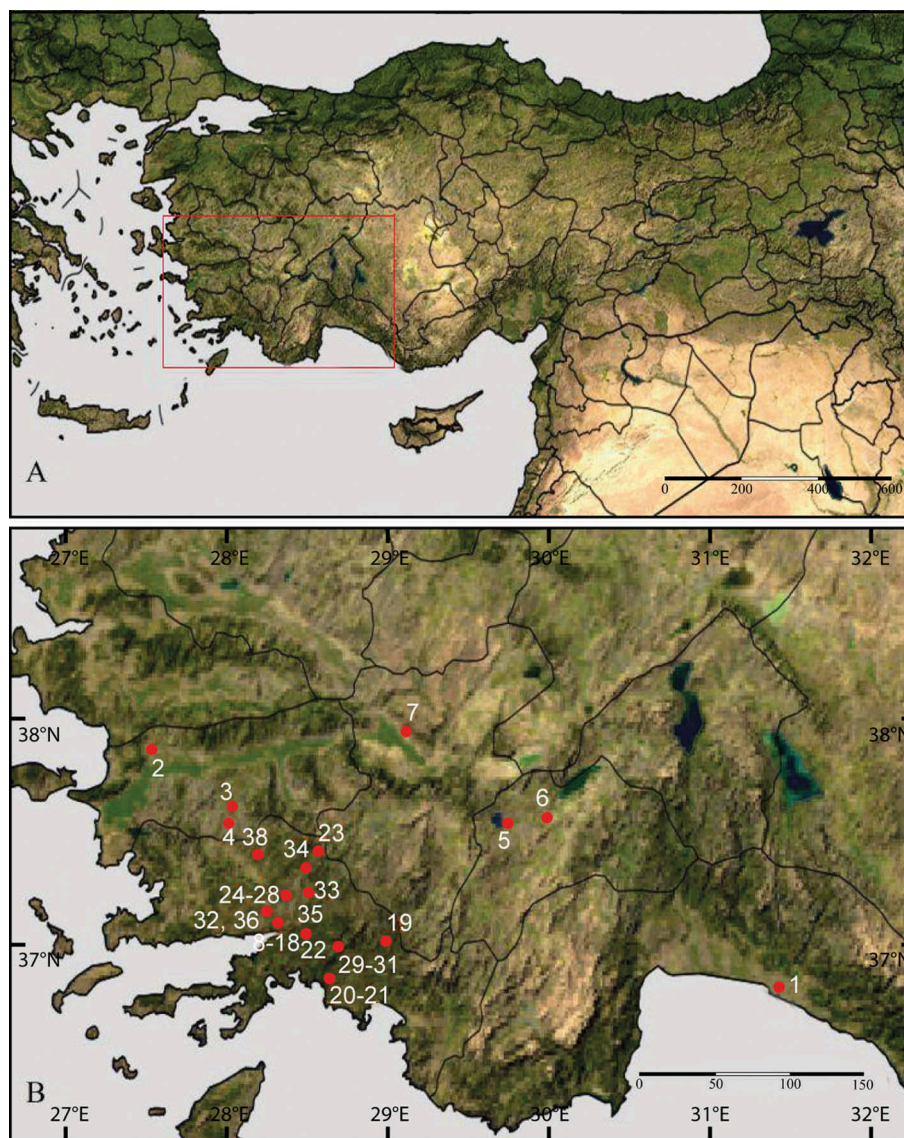
Altogether, 139 tachinid species were identified (Figure 2) and 17 additional species from published sources are presented. Subfamilies are arranged in order of the relevant catalogs of Herting (1984) or Herting & Dely-Draskovits (1993). Species are arranged alphabetically within each subfamily. Localities 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), Gilasian 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)

**Material.** Muğla province: 13 km NE of Muğla, pine wood, leg. Barták & Kubík, 23–27.VI.2015, 2♂, 1♀ [det. Tschorsnig].



**Figure 1.** Map of Turkey, showing the study area. **A**, position of the study area in Turkey; **B**, collecting sites in the study area (numbering of the sites corresponds to Table 1). Scales in kilometers.

**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

**Material.** Muğla province: Muğla, Köteкли (b), SW + YPT, leg. Barták & Kubík, 17–22.V.2011, 2♂ [det. Tschorsnig]; Toparlar (c), leg. Civelek & Dursun, 30.V.2009, 4♂ [det. Tschorsnig]; 13 km NE of Muğla, pine wood, leg. Barták & Kubík, 23–27.VI.2015, 1♂ [det. Tschorsnig]; same locality and collectors, 2–3.V.2016, 1♀ [det. Lutovinovas].

**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)

**Material.** Aydın province: 8 km S of Çine, river bank, SW + YPT, leg. Barták & Kubík, 28–30.VI.2015, 1♂ [det. Tschorsnig]; same locality and collectors, SW, 29.IV–1.V.2016, 1♂ [det. Lutovinovas]. – Muğla province: Muğla, Köteкли (c), MT, same collectors, XI.2012–III.2013, 1♂ [det. Tschorsnig]; Muğla, Köteкли

Table 1. List of localities with coordinates and altitudes.

No.	Province	Locality	Latitude (N)	Longitude (E)	Altitude (m)
1	Antalya	Side	36°12'00"	31°23'00"	–
2	Aydın	Ortaklar	37°53.031	27°29.570	57
3	Aydın	8 km S of Çine	37°32'34"	28°03'46"	68
4	Aydın	9 km S of Çine	37°31'36"	28°04'29"	70
5	Burdur	5 km NE Yeşilova	37°35'00"	29°55'00"	1060
6	Burdur	20 km SW Burdur	37°37'00"	30°09'00"	940
7	Denizli	10 km NE Denizli	37°56'00"	29°07'00"	290
8	Muğla	Akyaka (a)	37°03'16"	28°19'35"	30
9	Muğla	Akyaka (b)	37°03'21"	28°19'09"	40
10	Muğla	Akyaka (c)	37°03'19"	28°19'36"	40
11	Muğla	Akyaka (d)	37°03'09"	28°20'17"	4
12	Muğla	Akyaka (e)	37°03'19"	28°20'07"	6
13	Muğla	Akyaka (f)	37°03'11"	28°20'33"	8
14	Muğla	Akyaka (g)	37°03'16"	28°19'57"	–
15	Muğla	Akyaka (h)	37°02'53"	28°19'39"	–
16	Muğla	Akyaka (i)	37°03'00"	28°20'00"	2
17	Muğla	Akyaka (j)	37°01'49"	28°20'01"	2
18	Muğla	Akyaka (k)	37°01'00"	28°20'00"	2
19	Muğla	Bozbel, Gökseki	36°55.219	28°56.535	153
20	Muğla	Dalyan (a)	36°48'54"	28°39'04"	1
21	Muğla	Dalyan (b)	36°47'49"	28°38'55"	–
22	Muğla	Kizilyaka	37°01'21"	28°26'18"	105
23	Muğla	Menteşe	37°24'00"	28°37'00"	783
24	Muğla	Muğla, Kötekli (a)	37°09'42"	28°22'22"	684
25	Muğla	Muğla, Kötekli (b)	37°09'41"	28°22'21"	700
26	Muğla	Muğla, Kötekli (c)	37°09'39"	28°22'20"	710
27	Muğla	Muğla, Kötekli (d)	37°09'42"	28°22'13"	720
28	Muğla	Muğla, Kötekli (e)	37°09'38"	28°22'11"	730
29	Muğla	Toparlar (a)	36°59'27"	28°38'50"	8
30	Muğla	Toparlar (b)	36°58'39"	28°39'30"	60
31	Muğla	Toparlar (c)	36°59'73"	28°38'08"	140
32	Muğla	Yenice	37°06.978	28°19.102	670
33	Muğla	11 km E of Muğla	37°12'45"	28°27'42"	1310
34	Muğla	13 km NE of Muğla	37°14'50"	28°30'00"	1200
35	Muğla	5 km S of Muğla	37°08'27"	28°22'05"	670
36	Muğla	12 km SW of Muğla	37°07'40"	28°16'28"	660
37	Muğla	15 km SW of Muğla	37°06'31"	28°15'31"	630
38	Muğla	4 km N of Yatağan	37°22'12"	28°09'22"	460

(d), YPT, same collectors, 26–27.VI.2015, 1♂ [det. Tschorsnig]; same locality, MT, leg. Pala, VI–VII.2016, 1♂, 1♀ [det. Lutovinovas]; 13 km NE of Muğla, pine wood, leg. Barták & Kubík, 23–27.VI.2015, 3♂ [det. Tschorsnig].

**Distribution.** Holopalaeartic–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**

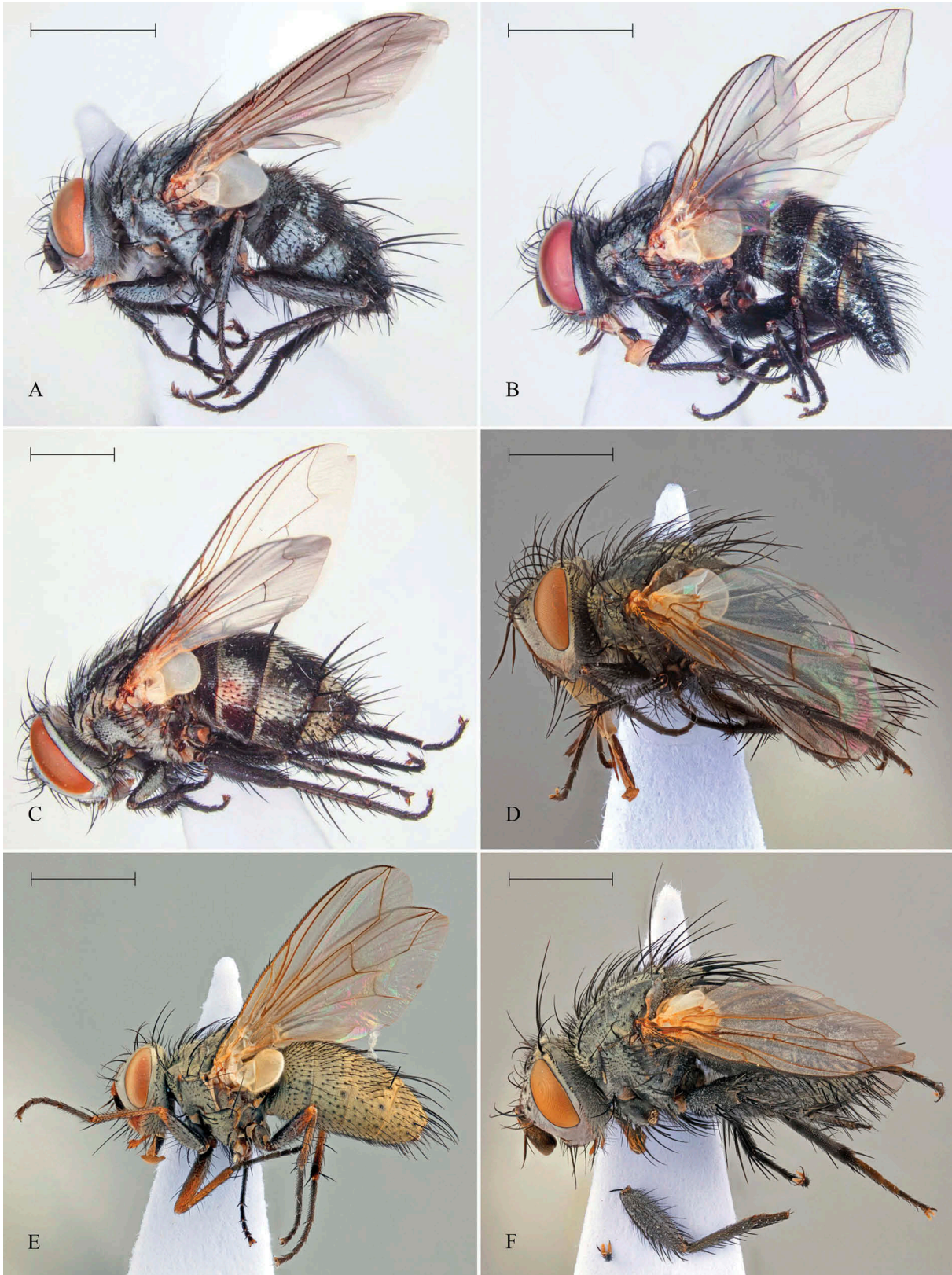
**Material.** Muğla province: Akyaka (d), pasture, leg. Barták & Kubík, 16–27.IX.2012, 8♂, 3♀ [det. Tschorsnig]; Akyaka (j),

salty meadow, same collectors, 22.VI–1.VII.2015, 2♂, 14♀ [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 Palaeartic–South Siberian–East Palaeartic (throughout Europe and Middle East to Mongolia, see Herting & Dely-Draskovits 1993); first record from Turkey.

***Belida angelicae* (Meigen, 1824)**

**Material.** Muğla province: Muğla, Kötekli (b), SW + YPT, leg. Barták & Kubík, 17–22.V.2011 and 29.IV–10.V.2013, 3♂, 1♀; same locality, MT, leg. Dursun, IV–V.2014, 1♀ [all det. Tschorsnig].



**Figure 2.** Several species of Turkish Tachinidae from the Muğla province. **A**, *Ceracia mucronifera* (♀); **B**, *Erycesta caudigera* (♀); **C**, *Dolichocolon paradoxum* (♀); **D**, *Brachicheta petiolata* (♂); **E**, *Palmonia hermonensis* (♀); **F**, *Hypovoria pilibasis* (♂). Scales: 2.5 mm. Photographers: M. Barták (A–C); A. Haselböck (D–F).

**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)**

**Material.** Muğla province: Muğla, Kötekli (b), SW + YPT, leg. Barták & Kubík, 17–22.V.2011, 2♂, 1♀ [det. Tschorsnig].

**Distribution.** Holarctic (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, 1939)**

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

**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.

***Blondelia 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 (through out 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.

***Cadurciella tritaeniata* (Rondani, 1859)**

**Material.** Muğla province: Muğla, Kötekli (e), MT, leg. Kavak, 5.VIII–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)**

**Material.** Muğla province: Muğla, Kötekli (b), SW + YPT, leg. Barták & Kubík, 17–22.V.2011, 1♂ [det. Tschorsnig].

**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**

**Material.** Muğla province: 13 km NE of Muğla, pine wood, leg. Barták & Kubík, 23–27.VI.2015, 1♀ [det. Tschorsnig].

**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**

**Material.** Muğla province: Akyaka (d), pasture, leg. Barták & Kubík, 16–22.IX.2012, 2♀ [det. Tschorsnig].

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

**Distribution.** Holopalaeartic–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)**

**Material.** Muğla province: Akyaka (d), pasture, leg. Barták & Kubík, 16–27.IX.2012 and 08–14.IX.2014, 19♂, 10♀ [det. Tschorsnig]; Akyaka (j), salty meadow, same collectors, 22.VI–1.VII.2015, 1♀ [det. Tschorsnig]; Muğla, Kötekli (b), MT, leg. Dursun, V.2013, 1♂, 2♀ [det. Tschorsnig]; Muğla, Kötekli (d), MT, leg. Kavak, V.2015, 1♀ [det. Tschorsnig]; same locality, YPT + MT, leg. Barták & Kubík, 26.VI–3.VII.2015, 1♀ [det. Tschorsnig]; Muğla, Kötekli (e), MT, leg. Kavak, 19.VIII–17.IX.2015, 1♀ [det. Lutovinovas]; same locality, leg. Barták & Kubík, XI.2015–IV.2016, 1♀ [det. Lutovinovas].

**Distribution.** Holopalaeartic (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)**

**Material.** Muğla province: Muğla, Kötekli (b), SW + YPT, leg. Barták & Kubík, 17–22.V.2011, 1♀ [det. Tschorsnig]; Muğla, Kötekli (d), MT, leg. Pala, VI–VII.2016, 2♀ [det. Lutovinovas]; Toparlar (a), lowland forest, SW + YPT, leg. Barták & Kubík, 22–24.VI.2015, 3♀ [det. Tschorsnig]. – Published records: Burdur province (Avcı 2009); Denizli province (Öncüer et al. 1977).

**Distribution.** Holarctic–Palaeotropical–Australasian (throughout Europe and Middle East to China, Japan see Herting & Dely-Draskovits 1993; O’Hara et al. 2009; Nigeria, India, Indonesia; Australia, Melanesia, see O’Hara & Cerretti 2016; introduced to Nearctic, see O’Hara & Wood 2004), also recorded from other parts of Turkey (Tuatay et al. 1972;

Baş 1982; Doğanlar 1982a; Kansu et al. 1986; Eroğlu 1995; Kılıç & Alaoğlu 1996; Tuncer & Ecevit 1996; Tschorsnig & Herting 1997; Kara 1998; Kovancı et al. 1999; Kara & Özdemir 2000; Kara & Alaoğlu 2001; Avcı & Kara 2002; Avcı & Oğurlu 2002; Tschorsnig 2005; Kaya & Kornoşor 2008; Akdağcık 2010; Sullivan & Ozman-Sullivan 2012; Atay & Kara 2014; Balkan et al. 2015; Kaya et al. 2016; numerous rearing records quoted by Kara & Tschorsnig 2003; Tschorsnig 2017; listed by Koçak & Kemal 2009, 2013, 2014).

***\*Dolichocolon paradoxum* Brauer & Bergenstamm, 1889**

**Material.** Muğla province: Akyaka (d), pasture, leg. Barták & Kubík, 16–22.IX.2012, 1♂; Toparlar (c), leg. Civelek & 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 Palaeartic, see Cerretti & Shima 2011); first record from Turkey.

***Drino atropivora* (Robineau-Desvoidy, 1830)**

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

**Distribution.** Holopalaeartic–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 Palaeartic–South Siberian–East Palaeartic (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 & Kubík, 30.IV–9.V.2013, 1♂; Akyaka (e), pasture, YPT + SW, same collectors, 28.IV–8.V.2013, 1♂, 3♀; Muğla, Kötekli (b), SW + YPT, same collectors, 29.IV–22.V.2013, 5♂, 11♀; Muğla, Kötekli (d), MT, leg. Kavak, 26.V–



26.VI.2015, 1♂; 11 km E of Muğla, pine wood + meadow, leg. Barták & Kubík, 23.V.2011, 1♂; 12 km SW of Muğla, on *Ferula communis*, same collectors, 23.V.2011, 2♂, 1♀; 5 km S of Muğla, edge of pine wood, on flowers, same collectors, 6.V.2013, 2♂, 2♀ [all det. Tschorsnig]. – Published records: Burdur province (Avcı 2009; Akıncı & Avcı 2016).

**Distribution.** 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; Akıncı & Avcı 2016; rearing records quoted by Kara & Tschorsnig 2003; Tschorsnig 2017; listed by Koçak & Kemal 2009, 2013, 2014).

**\*Erycesta caudigera (Rondani, 1861)**

**Material.** Muğla province: Akyaka (b), forest, SW + YPT, leg. Barták & Kubík, 16–27.V.2011, 1♀ [det. Tschorsnig]; Dalyan (b), salty meadow, YPT, same collectors, 18–30.IV.2016, 1♂ [det. Lutovinovas].

**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**

**Material.** Muğla province: 13 km NE of Muğla, pine wood, leg. Barták & Kubík, 23–27.VI.2015, 1♂ [det. Tschorsnig].

**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)**

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

**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**

**Material.** Muğla province: Akyaka (d), pasture, leg. Barták & Kubík, 16–27.IX.2012, 1♂, 2♀ [det. Tschorsnig].

**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)**

**Material.** Muğla province: Akyaka (d), pasture, YPT, leg. Barták & Kubík, 13–14.IX.2014, 1♂ [det. Tschorsnig].

**Distribution.** Holarctic–Oriental (throughout Europe and Northern Africa to Russian Far East, China, Japan, see Herting & Dely-Draskovits 1993; India, see O'Hara et al. 2009; introduced to Nearctic, see O'Hara & Wood 2004), recorded from Turkey (Baş 1982; Doğanlar 1982a; Kansu et al. 1986; Herting & Tschorsnig 1993; Çobanoğlu 1994; Tuncer & Ecevit 1996; Tschorsnig & Herting 1997; Anay 2000; Kara & Özdemir 2000; Tschorsnig 2005; Kara et al. 2007; Korkmaz 2007; Kaya & Kornoşor 2008; Gözüaçık et al. 2009; Özbek & Çoruh 2012; numerous rearing records quoted by Kara & Tschorsnig 2003; Tschorsnig 2017; listed by Koçak & Kemal 2009, 2013, 2014).

**[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)**

**Material.** Muğla province: Akyaka (e), pasture, SW, leg. Barták & Kubík, 28.IV–8.V.2013, 1♀ [det. Tschorsnig]; Muğla, Kötekli (b), SW + YPT, same collectors, 17–22.V.2011, 1♂ [det. Tschorsnig]; Muğla, Kötekli (d), MT, leg. Pala, VII.2016, 1♀ [det. Lutovinovas]; Toparlar (a), lowland forest, SW + YPT, leg. Barták & Kubík, 22–24.VI.2015, 1♂ [det. Tschorsnig].

**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; Kılıç & Alaoğlu 1996; Kara & Alaoğlu 2001; Avcı & Kara 2002; Avcı & Oğurlu 2002; Mückstein et al. 2004; Tschorsnig 2005; Avcı 2009; Akdağcık 2010; Bartsch & Tschorsnig 2010; Özbek & Çoruh 2012; Atay & Kara 2014; numerous rearing records quoted by Kara & Tschorsnig 2003; 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)**

**Material.** Muğla province: Toparlar (c), leg. Civelek & Dursun, 26.IV.2006, 1♂ [det. Tschorsnig].

**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)**

**Material.** Muğla province: Muğla, Kötekli (d), MT, leg. Kavak, 26.V–26.VI.2015, 1♀; Yenice, leg. Civelek & Dursun, 8.X.2006, 1♀ [all det. Tschorsnig].

**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**

**Material.** Aydın province: 8 km S of Çine, river bank, leg. Barták & Kubík, 21.IX.2012 and 10–12.IX.2014, 2♂, 1♀. – Muğla province: Akyaka (h), salty meadow, SW + YPT, same collectors, 28.IV–9.V.2013, 1♀ [all det. Tschorsnig]. – Published record: Aydın province (Herting & Tschorsnig 1993).

**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

Herting & Dely-Draskovits 1993), also recorded from other parts of Turkey (Tuatay et al. 1972; Gürses 1975; Doğanlar 1982a; Herting 1984; Herting & Dely-Draskovits 1993; Tschorsnig & Herting 1997; Kara 1998; Kara & Özdemir 2000; Tschorsnig 2005; Bartsch & Tschorsnig 2010; Özbek & Çoruh 2012; Atay & Kara 2014; rearing records quoted by Kara & Tschorsnig 2003; Tschorsnig 2017; listed by Koçak & Kemal 2009, 2013, 2014 [as *M. cuculliae* (Robineau-Desvoidy)]).

**\**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)**

**Material.** Aydın province: 8 km S of Çine, river bank, leg. Barták & Kubík, 10–12.IX.2014, 1♂ [det. Tschorsnig]; same locality and collectors, YPT, 29.IV–1.V.2016, 3♂ [det. Lutovinovas]. – Muğla province: Akyaka (d), pasture, same collectors, 16–22.IX.2012 and 13–14.IX.2014, 8♂ [det. Tschorsnig]; 13 km NE of Muğla, pine wood, same collectors, 23–27.VI.2015, 1♂ [det. Tschorsnig]; same locality and collectors, 2–3.V.2016, 1♂ [det. Lutovinovas].

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

***Meigenia mutabilis* (Fallén, 1810)**

**Material.** Aydın province: 8 km S of Çine, river bank, leg. Barták & Kubík, 29.IV–1.V.2016, 1♂ [det. Lutovinovas]. – Muğla province: Akyaka (f), pasture, same collectors, 23–27.IV.2016, 1♀ [det. Lutovinovas]; Kizilyaka, on flowers, same collectors, 27.IV–4.V.2016, 1♂ [det. Lutovinovas]; Muğla, Kötekli (b), SW + YPT, same collectors, 17–22.V.2011, 1♂ [det. Tschorsnig]; 13 km NE of Muğla, pine wood, same collectors, 2–3.V.2016, 1♂ [det. Lutovinovas].

**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–Afrotropical (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 floralis* (Fallén, 1810)]**

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

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

***Nemorilla maculosa* (Meigen, 1824)**

**Material.** Muğla province: Akyaka (d), pasture, leg. Barták & Kubík, 26–27.IX.2012 and 13–14.IX.2014, 11♂, 7♀ [det. Tschorsnig]; Akyaka (j), salty meadow, same collectors, 22.VI–1.VII.2015, 2♂, 7♀ [det. Tschorsnig]; Muğla, Kötekli (d), MT, leg. Pala, VI.2016, 2♀ [det. Lutovinovas]; Muğla, Kötekli (e), MT, leg. Kavak, 5–19.VIII.2015, 1♀ [det. Lutovinovas].

**Distribution.** Holopalaearctic–Oriental (Central and Southern Europe and Northern Africa to Russian Far East, China, Japan, see Herting & Dely-Draskovits 1993; India, Myanmar, see O’Hara et al. 2009), recorded from Turkey (Kavut et al. 1974; Herting 1983b; Yabaş & Zeren 1987; Çanakçıoğlu 1993; Aydın 1997; Kara & Özdemir 2000; Efil & Kara 2004; rearing records quoted by Kara & Tschorsnig 2003; Tschorsnig 2017; listed by Koçak & Kemal 2009, 2013, 2014).

**\**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

province: Akyaka (g), river bank + salty meadow, same collectors, 16–27.V.2011, 1♂ [det. Tschorsnig]; Akyaka (i), salty meadow, same collectors, 23–27.IX.2012, 1♀ [det. Tschorsnig]; Akyaka (j), same collectors, 22.VI–1.VII.2015, 1♀ [det. Tschorsnig]; Muğla, Kötekli (b), SW + YPT, same collectors, 17–22.V.2011 and 29.IV–10.V.2013, 7♀ [det. Tschorsnig]; same locality, PT, leg. Dursun, 5.V–17.VI.2013, 1♀ [det. Tschorsnig]; Toparlar (a), lowland forest, SW + YPT, leg. Barták & Kubík, 22–24.VI.2015, 2♀ [det. Tschorsnig]; same locality and collectors, 28–30.IV.2016, 1♂, 1♀ [det. Lutovinovas]; 11 km E of Muğla, pine wood + meadow, same collectors, 23.V.2011 and 1.V.2013, 2♂ [det. Tschorsnig]; 13 km NE of Muğla, pine wood, same collectors, 23–27.VI.2015, 2♂ [det. Tschorsnig]; same locality and collectors, 2–3.V.2016, 6♂, 2♀ [det. Lutovinovas]. – Published records: Burdur province (Avcı 2009); Muğla province: (Acatay 1959).

**Distribution.** Holopalaeartic (throughout Europe and Middle East 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 (Baş 1982, Doğanlar 1975, 1982a; Tuncer & Ecevit 1996; Kara 1998; Tschorsnig & Herting 1997; Kara & Özdemir 2000; Tschorsnig 2005; Özbek & Çalmaşur 2010; Özbek & Çoruh 2012; Robertson & Shaw 2012; Atay & Kara 2014; Balkan et al. 2015; Lakin et al. 2016b; numerous rearing records quoted by Kara & Tschorsnig 2003; Tschorsnig 2017; listed by Koçak & Kemal 2009, 2013, 2014).

#### *[Palesisa nudioculata Villeneuve, 1929]*

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

**Distribution.** South Palaeartic (Southern Europe and Middle East to Mongolia, see Herting & Dely-Draskovits 1993), also recorded from other parts of Turkey (Gürses 1975; Soydanbay 1976; Öncüer et al. 1977; Doğanlar 1982a; Herting 1984; Herting & Dely-Draskovits 1993; Kara & Özdemir 2000; Tschorsnig 2005; Özbek & Çoruh 2012; Atay & Kara 2014; rearing records quoted by Kara & Tschorsnig 2003; Tschorsnig 2017; listed by Koçak & Kemal 2009, 2013, 2014).

#### *Paratryphera barbatula (Rondani, 1859)*

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

**Distribution.** Holopalaeartic (throughout Europe and Middle East to Russian Far East, China, Japan, see Herting & Dely-Draskovits 1993; O’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 & Kubík, 28.IV–8.V.2013, 2♂; 12 km SW of Muğla, on *Ferula communis*, same collectors, 23.V.2011, 2♂, 4♀ [all det. Tschorsnig].

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

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

**Material.** Muğla province: Akyaka (b), forest, SW + YPT, leg. Barták & Kubík, 16–27.V.2011, 1♂; Akyaka (e), pasture, SW, same collectors, 28.IV–8.V.2013, 1♀ [all det. Tschorsnig].

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

#### *\*Phorocera assimilis (Fallén, 1810)*

**Material.** Muğla province: Muğla, Kötekli (b), SW + YPT, leg. Barták & Kubík, 17–22.V.2011 and 29.IV–10.V.2013, 4♂, 9♀ [det. Tschorsnig].

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

#### *Phorocera grandis (Rondani, 1859)*

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

**Distribution.** West and East (Disjunct) Palaeartic (Central and Southern Europe and Middle East; Russian Far East, China, Japan, see Herting & Dely-Draskovits 1993; Richter 2004; O’Hara et al. 2009), recorded from Turkey (Kara 2001a).

#### *Phryno vetula (Meigen, 1824)*

**Material.** Muğla province: Muğla, Kötekli (b), SW + YPT, leg. Barták & Kubík, 17–22.V.2011 and 29.IV–10.V.2013, 2♂, 19♀ [det. Tschorsnig]; same locality, YPT, leg. Dursun, IV–V.2014, 3♂, 1♀ [det. Tschorsnig]; Muğla, Kötekli (d), MT, leg. Kavak, IV.2015 and 26.V–26.VI.2015, 5♂, 2♀ [det. Tschorsnig]; same locality, leg. Pala, V.2016, 6♀ [det. Lutovinovas]; 5 km S of Muğla, edge of pine wood, on flowers, leg. Barták & Kubík, 6.

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, Northern Africa, see Herting & Dely-Draskovits 1993), also recorded from other parts of Turkey (Tunçyürek-Soydanbay 1978; Herting 1983b; Avcı & Kara 2002; Avcı & Oğurlu 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 (Öncüler 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; Öncüler et al. 1977; Uzun 1987; Avcı & Özbek 1990; Tschorsnig & Herting 1997; Kara & Özdemir 2000; Atay & Kara 2014; rearing records quoted by Kara & Tschorsnig 2003; Tschorsnig 2017).

**\**Platymya antennata* (Brauer & Bergenstamm, 1891)**

**Material.** Muğla province: Muğla, Kötekli (b), SW + YPT, leg. Barták & Kubík, 17–22.V.2011, 1♂; same locality, YPT, leg. Dursun, IV–V.2014, 2♂, 2♀; 13 km NE of Muğla, pine wood, leg. Barták & Kubík, 23–27.VI.2015, 11♂ [all det. Tschorsnig].

**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)**

**Material.** Muğla province: Kizilyaka, on flowers, leg. Barták & Kubík, 27.IV–4.V.2016, 1♀ [det. Lutovinovas]; Muğla, Kötekli (d), MT, leg. Pala, V.2016, 3♀ [det. Lutovinovas]; Muğla, Kötekli (e), MT, leg. Barták & Kubík, IV.2016, 6♀ [det. Lutovinovas]; 5 km S

of Muğla, edge of pine wood, on flowers, same collectors, 6.V.2013, 1♂ [det. Tschorsnig]; 13 km NE of Muğla, pine wood, same collectors, 23–27.VI.2015, 2♂ [det. Tschorsnig]; same locality and collectors, 2–3.V.2016, 1♂ [det. Lutovinovas].

**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. Lutovinovas]. – 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; Özbek 2008; Tozlu & Çoruh 2011; rearing records quoted by Kara & Tschorsnig 2003; Tschorsnig 2017).

**\**Smidtia amoena* (Meigen, 1824)**

**Material.** Muğla province: 13 km NE of Muğla, pine wood, leg. Barták & Kubík, 23–27.VI.2015, 1♀ [det. Tschorsnig].

**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.

2015; Tschorsnig 2017; listed by Koçak & Kemal 2009, 2013, 2014).

**\**Spallanzania rectistylum* (Macquart, 1847)**

**Material.** Muğla province: Muğla, Kötekli (c), MT, leg. Barták & Kubík, XI.2012–III.2013, 14♂, 9♀ [det. Tschorsnig]; Muğla, Kötekli (e), MT, same collectors, XI.2015–IV.2016, 2♂, 1♀ [det. Lutovinovas]; 13 km NE of Muğla, pine wood, same collectors, 23–27.VI.2015, 2♂ [det. Tschorsnig].

**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)**

**Material.** Muğla province: Toparlar (b), lowland forest, SW, leg. Barták & Kubík, 5–7.V.2013, 1♀ [det. Tschorsnig].

**Distribution.** Holopalaearctic–Oriental–Australasian (throughout Europe and Middle East to China, Japan, see Herting & Dely-Draskovits 1993; Thailand, Melanesia, see O'Hara 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)**

**Material.** Muğla province: Toparlar (a), lowland forest, SW + YPT, leg. Barták & Kubík, 22–24.VI.2015, 1♀ [det. Tschorsnig].

**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.

**[*Townsendiellomyia nidicola* (Townsend, 1908)]**

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

**Distribution.** West Palaearctic–South Siberian–Nearctic (Central and Southern Europe, Transcaucasia; Asian Russia to The Altai Republic, see Herting & Dely-Draskovits 1993; introduced to Nearctic, see O'Hara & Wood 2004), also recorded from other parts of Turkey (Kansu 1955; Gürses 1975; Öncüer et al. 1977; Doğanlar 1982a; Herting 1984; Kansu et al. 1986; Herting & Dely-Draskovits 1993; Tschorsnig & Herting 1997; Tschorsnig 2005; Atay & Kara 2014; rearing records quoted by Kara & Tschorsnig 2003; Tschorsnig 2017; listed by Koçak & Kemal 2009, 2013, 2014).

**\**Winthemia cruentata* (Rondani, 1859)**

**Material.** Muğla province: Muğla, Kötekli (b), SW + YPT, leg. Barták & Kubík, 17–22.V.2011, 1♀ [det. Tschorsnig]; 13 km NE of Muğla, pine wood, same collectors, 2–3.V.2016, 1♂ [det. Lutovinovas].

**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)**

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

**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)**

**Material.** Muğla province: Kizilyaka, on flowers, leg. Barták & Kubík, 27.IV–4.V.2016, 1♂ [det. Lutovinovas]; Muğla, Kötekli (d), leg. Pala, VI.2016, 1♂ [det. Lutovinovas]; Muğla, Kötekli (e), MT, leg. Barták & Kubík, IV.2016, 4♀ [det. Lutovinovas]; Toparlar (c), leg. Civelek & Dursun, 26.IV.2006, 1♂ [det. Tschorsnig]; 13 km NE of Muğla, pine wood, leg. Barták & Kubík, 2–3.V.2016, 1♀ [det. Lutovinovas].

**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.

IX.2014, 1♂; Toparlar (b), lowland forest, SW, same collectors, 5–7.V.2013, 1♂, 1♀ [all det. Tschorsnig].

**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.

***Bithia modesta* (Meigen, 1824)**

**Material.** Antalya province: Side, sandy dunes, leg. Halada, 6. X.2011, 1♂. – Muğla province: 13 km NE of Muğla, pine wood, leg. Barták & Kubík, 23–27.VI.2015, 1♀ [all det. Tschorsnig].

**Distribution.** West Palaearctic (Central and Southern Europe to Transcaucasia, Israel, see Herting & Dely-Draskovits 1993; Cerretti & Freidberg 2009), recorded from Turkey (Doğanlar 1982b; listed by Koçak & Kemal 2009, 2013, 2014).

**\**Ceromya bicolor* (Meigen, 1824)**

**Material.** Muğla province: Muğla, Kötekli (b), MT, leg. Dursun, V.2013, 1♂ [det. Tschorsnig].

**Distribution.** Holarctic (throughout Europe and Transcaucasia to China, see Herting & Dely-Draskovits 1993; O'Hara et al. 2009; autochthonous in Nearctic, see O'Hara & Wood 2004); first record from Turkey.

**\**Ceromya dorsigera* Herting, 1967**

**Material.** Muğla province: Toparlar (b), lowland forest, SW, leg. Barták & Kubík, 5–7.V.2013, 1♂ [det. Tschorsnig].

**Distribution.** West and East (Disjunct) Palaearctic (Central and Southern Europe; China, Japan, see Herting & Dely-Draskovits 1993; O'Hara et al. 2009); first record from Turkey.

***Clausicella puella* (Rondani, 1861)**

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

**Distribution.** West and Central Palaearctic (Central and Southern Europe and Middle East to Kazakhstan, Tajikistan, see Herting & Dely-Draskovits 1993), recorded from Turkey (Kara 2002).

**\**Clausicella suturata* Rondani, 1859**

**Material.** Muğla province: Dalyan (a), farm, MT, leg. Dursun, 8–20.VIII.2015, 7♀; Muğla, Kötekli (e), MT, leg. Kavak, 5.VIII–17.IX.2015, 6♀ [all det. Lutovinovas].

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

***Graphogaster vestita* Rondani, 1868**

**Material.** Burdur province: 5 km NE Yeşilova, leg. Halada, 6. VII.2006, 1♂. – Muğla province: 13 km NE of Muğla, pine wood, leg. Barták & Kubík, 23–27.VI.2015, 1♂ [all det. Tschorsnig].

**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).

**[*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).

***Linnaemya neavei* Curran, 1934**

**Material.** Muğla province: Akyaka (e), pasture, YPT + SW, leg. Barták & Kubík, 28.IV–8.V.2013, 2♂ [det. Tschorsnig]; Akyaka (k), salty meadow, YPT, same collectors, 27.IV–1.V.2016, 1♂ [det. Lutovinovas].

**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).

***Linnaemya vulpina* (Fallén, 1810)**

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

**Distribution.** Holopalaearctic (throughout Europe and Middle East to China, see Herting & Dely-Draskovits

1993; O'Hara et al. 2009), recorded from Turkey (Sertkaya & Bayram 2005; Korkmaz 2007; single rearing record quoted by Tschorsnig 2017).

**[*Loewia crassipes* (Mesnil, 1953)]**

**Material.** Published record only: Antalya province (Bystrowski 2011).

**Distribution.** East Mediterranean (incl. Israel, see Herting & Dely-Draskovits 1993; Cerretti & Freidberg 2009). This species has not been recorded from other parts of Turkey (listed by Koçak & Kemal 2013, 2014).

***Loewia brevifrons* (Rondani, 1856)**

**Material.** Muğla province: Akyaka (b), forest, SW + YPT, leg. Barták & Kubík, 16–27.V.2011, 2♀ [det. Tschorsnig]; Muğla, Kötekli (b), SW + YPT, same collectors, 17–22.V.2011 and 29.IV–10.V.2013, 7♂, 5♀ [det. Tschorsnig]; same locality, MT, leg. Dursun, IV–V.2014, 1♂ [det. Tschorsnig]; Toparlar (a), leg. Barták & Kubík, 5–7.V.2013, 2♂, 8♀ [det. Lutovinovas]; Toparlar (b), lowland forest, SW, same collectors, 5–7.V.2013, 11♂, 12♀ [det. Tschorsnig]; 13 km NE of Muğla, pine wood, same collectors, 2–3.V.2016, 1♂ [det. Lutovinovas]; 5 km S of Muğla, edge of pine wood, on flowers, same collectors, 6.V.2013, 2♂, 6♀ [det. Tschorsnig].

**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 Koçak & Kemal 2014).

**\**Lydina aenea* (Meigen, 1824)**

**Material.** Muğla province: Muğla, Kötekli (c), MT, leg. Barták & Kubík, XI.2012–III.2013, 2♀ [det. Tschorsnig]; Muğla, Kötekli (d), MT, leg. Kavak, IV.2015, 1♂ [det. Tschorsnig]; 13 km NE of Muğla, pine wood, leg. Barták & Kubík, 2–3.V.2016, 8♀ [det. Lutovinovas].

**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 cunctans*, 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)**

**Material.** Aydın province: 8 km S of Çine, river bank, leg. Barták & Kubík, 10–12.IX.2014, 2♂, 1♀ [det. Tschorsnig]; same locality and collectors, SW + YPT, 28–30.VI.2015, 1♂ [det. Tschorsnig]; same locality and collectors, YPT, 29.IV–1.V.2016, 8♂, 1♀ [det. Lutovinovas]. – Muğla province: Akyaka (a), forest, SW, same collectors, 30.IV–9.V.2013, 1♂ [det. Tschorsnig]; Akyaka (d), pasture, same collectors, 23–27.IX.2012 and 13–14.IX.2014, 3♂ [det. Tschorsnig]; Akyaka (e), SW, same collectors, 28.IV–8.V.2013, 1♂ [det. Tschorsnig]; Akyaka (g), river bank + salty meadow, same collectors, 16–27.V.2011, 6♂ [det. Tschorsnig].

**Distribution.** West Palaearctic–South Siberian–East Palaearctic (throughout Europe and Middle East to Mongolia, China, see Herting & Dely-Draskovits 1993; O'Hara et al. 2009), recorded from Turkey (Kara 1999a, 2001b; Anay 2000; Korkmaz 2007; single rearing record quoted by Kara & Tschorsnig 2003; Tschorsnig 2017; listed by Koçak & Kemal 2009, 2013, 2014).

***Macquartia tessellum* (Meigen, 1824)**

**Material.** Muğla province: Muğla, Kötekli (b), SW + YPT, leg. Barták & Kubík, 17–22.V.2011 and 29.IV–10.V.2013, 1♂, 3♀ [det. Tschorsnig]; Muğla, Kötekli (d), MT, leg. Pala, V.2016, 1♀ [det. Lutovinovas]; 13 km NE of Muğla, pine wood, leg. Barták & Kubík, 23–27.VI.2015, 6♂ [det. Tschorsnig]; same locality and collectors, 2–3.V.2016, 1♀ [det. Lutovinovas].

**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 Koçak & Kemal 2009, 2013, 2014).

**\**Melisonera leucoptera* (Meigen, 1824)**

**Material.** Muğla province: Muğla, Kötekli (b), SW + YPT, leg. Barták & Kubík, 17–22.V.2011, 2♂, 2♀ [det. Tschorsnig].



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

***Microphthalma europaea* Egger, 1860**

**Material.** Aydın province: 8 km S of Çine, river bank, leg. Barták & Kubík, 10–12.IX.2014, 2♂ [det. Tschorsnig]; same locality and collectors, YPT, 29.IV–1.V.2016, 1♂ [det. Lutovinovas]. – Muğla province: Akyaka (d), pasture, same collectors, 16–27.IX.2012 and 8–14.IX.2014, 25♂, 15♀ [det. Tschorsnig]; Akyaka (j), salty meadow, same collectors, 22.VI–1.VII.2015, 3♂, 8♀ [det. Tschorsnig]; Toparlar (c), leg. Civelek & Dursun, 26.IV.2006, 1♂ [det. Tschorsnig]. – Published record: Aydın province (Karagöz et al. 2011).

**Distribution.** West and Central Palaearctic–South Siberian (Central and Southern Europe, Northern Africa, Saudi Arabia, Iran, Turkmenistan, Asian Russia, see Herting & Dely-Draskovits 1993; Dawah 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 rufiventris* (Fallén, 1817)**

**Material.** Muğla province: Muğla, Kötekli (b), SW + YPT, leg. Barták & Kubík, 17–22.V.2011, 1♀ [det. Tschorsnig]; Muğla, Kötekli (d), MT, leg. Pala, VI.2016, 1♀ [det. Lutovinovas]; 11 km E of Muğla, pine wood + meadow, leg. Barták & Kubík, 1.V.2013, 1♀ [det. Tschorsnig].

**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 2013, 2014).

***Minthodes diversipes* (Strobl, 1899)**

**Material.** Muğla province: Akyaka (e), pasture, leg. Barták & Kubík, 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 & Kubík, 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)**

**Material.** Muğla province: Akyaka (d), pasture, leg. Barták & Kubík, 16–22.IX.2012, 1♀ [det. Tschorsnig]; Toparlar (a), lowland forest, SW + YPT, same collectors, 28–30.IV.2016, 1♂ [det. Lutovinovas].

**Distribution.** West Palaearctic–South Siberian–East Palaearctic (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 (Herting 1985; Tuncer & Ecevit 1996; Tschorsnig 2005; Sullivan & Ozman-Sulllivan 2012; Balkan et al. 2015; rearing records quoted by Kara & Tschorsnig 2003; Tschorsnig 2017; listed by Koçak & Kemal 2009, 2013, 2014).

**\**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**

**Material.** Muğla province: Muğla, Kötekli (b), MT, leg. Dursun, V.2013, 3♂, 1♀; Muğla, Kötekli (d), MT, leg. Kavak, V.2015, 2♂, 1♀ and 26.V–26.VI.2015, 1♀; same locality, leg. Barták & Kubík, 26.VI–3.VII.2015, 1♀ [all det. Tschorsnig].

**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)**

**Material.** Aydın province: 8 km S of Çine, river bank, leg. Barták & Kubík, 21.IX.2012 and 10–12.IX.2014, 2♂, 1♀ [det. Tschorsnig]; same locality and collectors, SW, 29.IV–1.V.2016, 1♀ [det. Lutovinovas]. – Muğla province: Akyaka (d), pasture, same collectors, 16–27.IX.2012, 3♂ [det. Tschorsnig]; Akyaka (e), pasture, SW, same collectors, 28.IV–8.V.2013, 1♂ [det. Tschorsnig]; Akyaka (j), salty meadow, same collectors, 22.VI–1.VII.2015, 2♀ [det. Tschorsnig]; Muğla, Kötekli (d), MT, leg. Pala, VI.2016, 1♀ [det. Lutovinovas]; Muğla, Kötekli (e), MT,

leg. Barták & Kubík, IV.2016, 1♂ [det. Lutovinovas]; Toparlar (a), SW + YPT, same collectors, 22–24.VI.2015, 1♀ [det. Tschorsnig]; Toparlar (b), lowland forest, SW, same collectors, 5–7.V.2013, 1♂ [det. Tschorsnig]; Toparlar (c), leg. Civelek & Dursun, 26.IV.2006 and 30.V.2009, 1♂, 1♀ [det. Tschorsnig]; Yenice, same collectors, 8.X.2006, 1♂ [det. Tschorsnig].

**Distribution.** Holopalaeartic–Palaeotropical (throughout Europe and Northern Africa to China, Japan, see Herting & Dely-Draskovits 1993; Andersen 1996; O’Hara et al. 2009; Kenya, Myanmar, see O’Hara & Cerretti 2016), recorded from Turkey (Anay 2000; Kara 2001b; Korkmaz 2007; Lekin et al. 2016b; single rearing record quoted by Kara & Tschorsnig 2003; Tschorsnig 2017).

**\*Phytomytera cingulata (Robineau-Desvoidy, 1830)**

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

**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 + 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]. – Remark: 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)**

**Material.** Muğla province: Muğla, Kötekli (b), SW + YPT, leg. Barták & Kubík, 17–22.V.2011, 3♂, 1♀ [det. Tschorsnig]; Muğla, Kötekli (c), MT, same collectors, XI.2012–III.2013, 1♂, 1♀ [det. Tschorsnig]; Muğla, Kötekli (e), MT, same collectors, XI.2015–IV.2016, 2♀ [det. Lutovinovas]; Muğla, Kötekli (d), MT, leg. Pala, V.2016, 1♂, 1♀ [det. Lutovinovas]; 12 km SW of Muğla, on *Ferula communis*, leg. Barták & Kubík, 23.V.2011, 1♂, 1♀ [det. Tschorsnig]; 5 km S of Muğla, edge of pine wood, on flowers, same collectors, 6.V.2013, 3♂ [det. Tschorsnig].

**Distribution.** Holopalaeartic (throughout Europe and Northern Africa to China, Japan, see Herting & Dely-Draskovits 1993; O’Hara et al. 2009), recorded from Turkey (Doğanlar 1982b; Kara 1999a; Korkmaz 2007; Lekin et al. 2016b; listed by Koçak & Kemal 2009, 2013, 2014).

**\*Tachina lurida (Fabricius, 1781)**

**Material.** Muğla province: Muğla, Kötekli (b), SW + YPT, leg. Barták & Kubík, 29.IV–10.V.2013, 1♀; Muğla, Kötekli (c), MT, same collectors, XI.2012–III.2013, 3♂, 2♀ [all det. Tschorsnig].

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

**Tachina magnicornis (Zetterstedt, 1844)**

**Material.** Muğla province: Muğla, Kötekli (c), MT, leg. Barták & Kubík, XI.2012–III.2013, 5♂, 2♀; Toparlar (c), leg. Civelek & Dursun, 30.V.2009, 4♂ [all det. Tschorsnig].

**Distribution.** Holopalaeartic (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).

**Distribution.** Holopalaeartic (Central and Southern Europe and Northern Africa to Mongolia, China, see Herting & Dely-Draskovits 1993; O’Hara et al. 2009), also recorded from other parts of Turkey (Doğanlar 1975, 1982b; Gürses 1975; Öncüer et al. 1977; Kansu et al. 1986; Kara 1999a; Kara & Özdemir 2000; Mückstein et al. 2004; Özbek & Çoruh 2012; rearing records quoted by Kara & Tschorsnig 2003; Tschorsnig 2017; listed by Koçak & Kemal 2009, 2013, 2014).

**\*Triarthria setipennis (Fallén, 1810)**

**Material.** Muğla province: 13 km NE of Muğla, pine wood, leg. Barták & Kubík, 2–3.V.2016, 1♂ [det. Lutovinovas].

**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.

**\*Trichactia pictiventris (Zetterstedt, 1855)**

**Material.** Burdur province: 5 km NE Yeşilova, leg. Halada, 6.VII.2006, 1♀. – Muğla province: Akyaka (a), forest, SW, leg. Barták & Kubík, 30.IV–9.V.2013, 1♀ [all det. Tschorsnig].

**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)**

**Material.** Muğla province: Akyaka (a), forest, SW, leg. Barták & Kubík, 30.IV–9.V.2013, 1♀; Muğla, Kötekli (b), SW + YPT, same collectors, 17–22.V.2011 and 29.IV–10.V.2013, 2♂, 2♀; same locality, MT, leg. Dursun, IV–V.2014, 2♂; Muğla, Kötekli (d), MT, leg. Kavak, 26.V–26.VI.2015, 2♀; 5 km S of Muğla, edge of pine wood, on flowers, leg. Barták & Kubík, 6.V.2013, 1♂, 2♀; 12 km SW of Muğla, on *Ferula communis*, same collectors, 23.V.2011, 1♀ [all det. Tschorsnig].

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

**\*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); first record from Turkey.

**\*Campylocheta inepta (Meigen, 1824)**

**Material.** Muğla province: Muğla, Kötekli (d), MT, leg. Kavak, V.2015, 1♀ [det. Tschorsnig]; Muğla, Kötekli (e), MT, leg. Barták & Kubík, IV.2016, 2♀ [det. Lutovinovas].

**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.

**\*Campylocheta latigena Mesnil, 1974**

**Material.** Muğla province: Muğla, Kötekli (b), SW + YPT, leg. Barták & Kubík, 29.IV–10.V.2013, 1♀; Muğla, Kötekli (c), MT, same collectors, XI.2012–III.2013, 1♀; Muğla, Kötekli (d), MT, leg. Kavak, IV.2015 and 26.V–26.VI.2015, 3♂, 1♀ [all det. Tschorsnig].

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

**\*Campylocheta praecox (Meigen, 1824)**

**Material.** Muğla province: Muğla, Kötekli (b), MT, leg. Dursun, V.2013, 1♂; Muğla, Kötekli (d), MT, leg. Kavak, IV.2015, 1♂ [all det. Tschorsnig].

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

**[Cyrtophloeba ruricola (Meigen, 1824)]**

**Material.** Published record only: Antalya province (Seyyedi-Sahebari et al. 2014).

**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), also recorded from other parts of Turkey (Seyyedi-Sahebari et al. 2014).

**Dexia rustica (Fabricius, 1775)**

**Material.** Muğla province: Muğla, Kötekli (d), MT, leg. Kavak, V.2015, 1♀ [det. Tschorsnig]; same locality, leg. Pala, V.2016, 1♀ [det. Lutovinovas]; Toparlar (a), SW + YPT, leg. Barták & Kubík, 22–24.VI.2015, 3♀ [det. Tschorsnig]; same locality and collectors, 28–30.IV.2016, 1♀ [det. Lutovinovas]; Toparlar (b), lowland forest, SW, same collectors, 5–7.V.2013, 9♂, 5♀ [det. Tschorsnig]. – Published record: Antalya province (Seyyedi-Sahebari et al. 2014).

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

**Eriothrix prolixa (Meigen, 1824)**

**Material.** Muğla province: 15 km SW of Muğla, damp valley near brook, leg. Barták & Kubík, 23.V.2011, 1♂ [det. Tschorsnig].

**Distribution.** Holopalaeartic (throughout Europe and Transcaucasia to Mongolia, China, see Herting & Dely-Draskovits 1993; O'Hara et al. 2009), recorded from Turkey (Kara 1999b).

***Eriothrix rufomaculata* (De Geer, 1776)**

**Material.** Muğla province: Menteşe, leg. Civelek & Dursun, 7. X.2006, 1♀ [det. Tschorsnig].

**Distribution.** Holopalaeartic (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 (Doğanlar 1982b; Kara 1999b; Balkan et al. 2015; Lekin et al. 2016b; listed by Koçak & Kemal 2009, 2013, 2014).

***Estheria nigripes* (Villeneuve, 1920)**

**Material.** Muğla province: Muğla, Kötekli (b), SW + YPT, leg. Barták & Kubík, 17–22.V.2011, 1♀ [det. Tschorsnig]; Muğla, Kötekli (c), MT, same collectors, XI.2012–III.2013, 1♂ [det. Tschorsnig]; Muğla, Kötekli (d), MT, leg. Pala, VI.2016, 1♀ [det. Lutovinovas]; Toparlar (c), leg. Civelek & Dursun, 26. IV.2006, 1♀ [det. Tschorsnig].

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

***Hypovoria hilaris* (Villeneuve, 1912)**

**Material.** Muğla province: Muğla, Kötekli (b), SW + YPT, leg. Barták & Kubík, 29.IV–10.V.2013, 1♀ [det. Tschorsnig]. – Published record: Antalya province (Seyyedi-Sahebari et al. 2014).

**Distribution.** South Palaeartic (Southern Europe and Northern Africa to Mongolia, China, see Herting & Dely-Draskovits 1993; O'Hara et al. 2009). This species has not been recorded from other parts of Turkey.

***Hypovoria pilibasis* (Villeneuve, 1922)**

**Material.** Muğla province: Toparlar (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)**

**Material.** Muğla province: Bozbel, Gökseki, near river, leg. Civelek & Dursun, 7.V.2007, 1♂ [det. Tschorsnig]. – Remark: now the place is under the Dalaman dam.

**Distribution.** West and East (Disjunct) Palaeartic (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)**

**Material.** Aydın province: 9 km S of Çine, river bank, leg. Barták & Kubík, 2.V.2013, 1♂ [det. Tschorsnig]. – Muğla province: Akyaka (i), salty meadow, YPT, same collectors, 27. IV–1.V.2016, 1♂ [det. Lutovinovas]. – Published record: Denizli province (Kavut et al. 1974).

**Distribution.** Holopalaeartic–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 & Kılınçer 1987, 1991; Kara & Özdemir 2000; Lekin et al. 2016b; rearing records quoted by Kara & Tschorsnig 2003; Tschorsnig 2017).

***Voria ruralis* (Fallén, 1810)**

**Material.** Aydın province: 8 km S of Çine, river bank, leg. Barták & Kubík, 21.IX.2012 and 10–12.IX.2014, 3♀ [det. Tschorsnig]; same locality and collectors, 29.IV–1.V.2016, 1♂, 1♀ [det. Lutovinovas]. – Muğla province: Akyaka (b), forest, SW + YPT, same collectors, 16–27.V.2011, 1♂ [det. Tschorsnig]; Akyaka (e), pasture, YPT, same collectors, 28.IV–8.V.2013, 1♂ [det. Tschorsnig]; Akyaka (f), pasture, same collectors, 27.IV.2016, 1♂ [det. Lutovinovas]; Akyaka (k), salty meadow, YPT, same collectors, 27.IV–1.V.2016, 7♂, 3♀ [det. Lutovinovas]; Dalyan (b), salty meadow, YPT, same collectors, 28–30.IV.2016, 2♂ [det. Lutovinovas]; Kizilyaka, on flowers, same collectors, 27.IV–4.V.2016, 2♀ [det. Lutovinovas]; Muğla, Kötekli (b), SW + YPT, same collectors, 17–22.V.2011, 1♂, 2♀ [det. Tschorsnig]; Toparlar (a), lowland forest, SW + YPT, same collectors, 28–30.IV.2016, 1♂ [det. Lutovinovas]; 11 km E of Muğla, pine wood + meadow, same collectors, 1.V.2013, 1♀ [det. Tschorsnig].

**Distribution.** Nearly Cosmopolitan (see Herting & Dely-Draskovits 1993; O'Hara & Wood 2004; O'Hara et al. 2009; O'Hara & Cerretti 2016), recorded from Turkey (Steiner 1937; Kavut et al. 1974; Avcı & Özbek 1990; Anay 2000; Kara & Özdemir 2000; Kaya & Kornoşor 2008; Lekin et al. 2016b; rearing records quoted by Kara & Tschorsnig 2003; Tschorsnig 2017; listed by Koçak & Kemal 2013, 2014).

**\**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**

**Material.** Muğla province: Akyaka (a), forest, SW, leg. Barták & Kubík, 30.IV–9.V.2013, 2♂, 1♀ [det. Tschorsnig].

**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**

**Material.** Muğla province: Kizilyaka, on flowers, leg. Barták & Kubík, 27.IV–4.V.2016, 1♀ [det. Lutovinovas].

**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*****Besseria lateritia* (Meigen, 1824)**

**Material.** Muğla province: Toparlar (c), leg. Civelek & Dursun, 26.IV.2006, 1♂ [det. Tschorsnig].

**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)**

**Material.** Muğla province: Akyaka (b), forest, SW + YPT, leg. Barták & Kubík, 16–27.V.2011, 2♂ [det. Tschorsnig]; Muğla, Kötekli (d), MT, leg. Pala, V.2016, 1♀ [det. Lutovinovas]; 11 km

E of Muğla, pine wood + meadow, leg. Barták & Kubík, 23.V.2011, 3♂ [det. Tschorsnig]; 13 km NE of Muğla, pine wood, same collectors, 23–27.VI.2015, 2♂ [det. Tschorsnig]; same locality and collectors, 2–3.V.2016, 1♂ [det. Lutovinovas].

**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)**

**Material.** Muğla province: Akyaka (e), pasture, SW, leg. Barták & Kubík, 28.IV–8.V.2013, 1♂ [det. Tschorsnig]; Muğla, Kötekli (c), MT, same collectors, XI.2012–III.2013, 1♂ [det. Tschorsnig]; Muğla, Kötekli (d), MT, leg. Pala, V–VI.2016, 2♂, 1♀ [det. Lutovinovas]; Muğla, Kötekli (e), MT, leg. Barták & Kubík, VI.2016, 3♂, 1♀ [det. Lutovinovas].

**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)**

**Material.** Muğla province: Dalyan (a), farm, MT, leg. Dursun, 8–20.VIII.2016, 1♀ [det. Lutovinovas]; Toparlar (c), leg. Civelek & Dursun, 30.V.2009, 1♂ [det. Tschorsnig]; 13 km NE of Muğla, pine wood, leg. Barták & Kubík, 2–3.V.2016, 1♂ [det. Lutovinovas]; 4 km N of Yatağan, on *Foeniculus* flowers, same collectors, 30.VI.2015, 1♂ [det. Tschorsnig].

**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 pniae* 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).

#### *Clytiomya ?dupuisi* Kugler, 1971

**Material.** Burdur province: 5 km NE Yeşilova, leg. Halada, 6.VII.2006, 6♂, 1♀ [det. Tschorsnig]. – Muğla province: Akyaka (a), forest, SW, leg. Barták & Kubík, 30.IV–9.V.2013, 1♀ [det. Tschorsnig]; Akyaka (e), pasture, SW, same collectors, 28.IV–8.V.2013, 1♂ [det. Tschorsnig]; Kizilyaka, on flowers, same collectors, 28.IV–4.V.2016, 1♀ [det. Lutovinovas]; Muğla, Kötekli (b), SW + YPT, same collectors, 17–22.V.2011, 1♂ [det. Tschorsnig]; Muğla, Kötekli (d), MT, leg. Kavak, 26.V–26.VI.2015, 1♀ [det. Tschorsnig]; same locality, MT, leg. Pala, 17–22.V.2011, 2♂, 1♀ [det. Lutovinovas]; Muğla, Kötekli (e), MT, leg. Barták & Kubík, IV.2016, 5♀ [det. Lutovinovas]; 13 km NE of Muğla, pine wood, same collectors, 2–3.V.2016, 1♀ [det. Lutovinovas]. – Remark: *C. dupuisi* is the most likely identification, but there is some variety in the shape of the process of the male syncercus, from short triangular (as figured in Kugler's description) to digitiform as in the very near *C. sola* (Rondani). – Published record: Aydın province (Karsavuran & Kara 2003).

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

#### *Clytiomya sola* (Rondani, 1861)

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

**Distribution.** Holomediterranean–Middle Eastern (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).

#### *Cylindromyia auriceps* (Meigen, 1838)

**Material.** Aydın province: 8 km S of Çine, river bank, SW + YPT, leg. Barták & Kubík, 21.IX.2012, 10–12.IX.2014 and 28–30.VI.2015, 5♂ [det. Tschorsnig]. – Muğla province: Akyaka (j), salty meadow, same collectors, 22.VI–1.VII.2015, 1♀ [det. Tschorsnig]; Dalyan (a), farm, MT, leg. Dursun, 8–20.VIII.2015, 1♂, 2♀ [det. Lutovinovas]; Kizilyaka, on flowers, leg. Barták & Kubík, 27.IV–4.V.2016, 1♂ [det. Lutovinovas]; Muğla, Kötekli (e), MT, leg. Kavak, 5–19.VIII.2015, 1♂, 1♀ [det. Lutovinovas]; 4 km N of Yatağan, on *Foeniculus* flowers, leg. Barták & Kubík, 30.VI.2015, 1♀ [det. Tschorsnig].

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

#### *Cylindromyia bicolor* (Olivier, 1812)

**Material.** Aydın province: 8 km S of Çine, river bank, leg. Barták & Kubík, 21.IX.2012, 1♂. – Muğla province: Akyaka (a), forest, SW, same collectors, 30.IV–9.V.2013, 1♀; Akyaka (e), pasture, SW, same collectors, 28.IV–8.V.2013, 1♂, 1♀; Muğla, Kötekli (d), MT, leg. Kavak, 26.V–26.VI.2015, 1♀; Toparlar (b), lowland forest, SW, leg. Barták & Kubík, 5–7.V.2013, 4♂; 13 km NE of Muğla, pine wood, same collectors, 23–27.VI.2015, 2♂, 1♀; [all det. Tschorsnig].

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

#### *Cylindromyia brassicaria* (Fabricius, 1775)

**Material.** Aydın province: 8 km S of Çine, river bank, leg. Barták & Kubík, 10–12.IX.2014, 1♂ [det. Tschorsnig]. – Muğla province: Muğla, Kötekli (d), MT, leg. Pala, V–VII.2016, 1♂, 3♀ [det. Lutovinovas]; Muğla, Kötekli (e), MT, leg. Barták & Kubík, XI.2015–IV.2016, 2♀ [det. Lutovinovas]. – Published record: Antalya and Burdur provinces (Keçeci et al. 2007).

**Distribution.** Holopalaeartic (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).

#### \**Cylindromyia crassa* (Loew, 1845)

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

**Distribution.** West Palaearctic–South Siberian (Central and Southern Europe, Middle East; Asian Russia to

Transbaikalia, see Herting & Dely-Draskovits 1993; Cerretti & Freidberg 2009; Gilasian et al. 2013); first record from Turkey.

**\**Cylindromyia hermonensis* Kugler, 1974**

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

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

***Cylindromyia pilipes* (Loew, 1844)**

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

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

***Cylindromyia pusilla* (Meigen, 1824)**

**Material.** Muğla province: Muğla, Kötekli (d), MT, leg. Kavak, V.2015 and 26.V–26.VI.2015, 2♂, 1♀ [det. Tschorsnig]; same locality, leg. Pala, V–VIII.2016, 8♂, 5♀ [det. Lutovinovas]; same locality, YPT, leg. Barták & Kubík, 26–27.VI.2015, 1♂ [det. Tschorsnig]; same locality and collectors, MT, 26.VI–3.VII.2015, 1♂ [det. Tschorsnig]; Muğla, Kötekli (e), MT, same collectors, XI.2015–IV.2016, 13♂, 9♀ [det. Lutovinovas].

**Distribution.** West Palaearctic–South Siberian–East Palaearctic (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)**

**Material.** Muğla province: Muğla, Kötekli (e), MT, leg. Kavak, 19.VIII–17.IX.2015, 1♂ [det. Lutovinovas].

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

***Cylindromyia rufipes* (Meigen, 1824)**

**Material.** Aydın province: 8 km S of Çine, river bank, SW + YPT, leg. Barták & Kubík, 21.IX.2012, 10–12.IX.2014 and 28–30.VI.2015, 12♂, 5♀ [det. Tschorsnig]. – Denizli province: 10 km NE Denizli, leg. Halada, 4.VII.2006, 2♂ [det. Tschorsnig]. – Muğla province: Akyaka (d), pasture, leg. Barták & Kubík, 16–27.IX.2012 and 8–14.IX.2014, 9♂, 9♀ [det. Tschorsnig]; Akyaka (h), salty meadow, SW + YPT, same collectors, 28.IV–9.V.2013, 1♀ [det. Tschorsnig]; Akyaka (j), salty meadow, same collectors, 22.VI–1.VII.2015, 1♂ [det. Tschorsnig]; Akyaka (k), salty meadow, same collectors, 23–27.IX.2012, 2♀ [det. Tschorsnig]; Muğla, Kötekli (e), MT, leg. Kavak, 5–19.VIII.2015, 1♀ [det. Lutovinovas]; Toparlar (a), lowland forest, leg. Barták & Kubík, 11.IX.2014, 4♂, 2♀ [det. Tschorsnig]. – Published record: Aydın province (Kara 2001a).

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

***Ectophasia crassipennis* (Fabricius, 1794)**

**Material.** Muğla province: Toparlar (a), lowland forest, SW + YPT, leg. Barták & Kubík, 28–30.IV.2016, 2♂, 1♀ [det. Lutovinovas].

**Distribution.** West Palaearctic–South Siberian–East Palaearctic (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)**

**Material.** Burdur province: 5 km NE Yeşilova, leg. Halada, 6.VII.2006, 5♂, 7♀ [det. Tschorsnig]. – Muğla province: Akyaka (e), pasture, SW, leg. Barták & Kubík, 28.IV–8.V.2013, 1♂ [det. Tschorsnig]; Kizilyaka, on flowers, same collectors, 27.IV–4.V.2016, 4♀ [det. Lutovinovas]; Toparlar (b), lowland forest, SW, same collectors, 5–7.V.2013, 1♂ [det. Tschorsnig].

**Distribution.** West Palaearctic (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 &

Tschorsnig 1993; Memişoğlu & Özer 1994; Öncüer & Kıvan 1995; Kıvan 1996; Kara 1998; İslamoğlu & Kornoşor 2003, 2007; Aksu 2005; Tschorsnig 2005; Korkmaz 2007; Gözüaçık et al. 2010; Atay & Kara 2014; Lekin et al. 2016b; numerous rearing records quoted by Kara & Tschorsnig 2003; Tschorsnig 2017).

#### *Eliozeta helluo* (Fabricius, 1805)

**Material.** Muğla province: Akyaka (b), forest, SW + YPT, leg. Barták & Kubík, 16–27.V.2011, 1♂ [det. Tschorsnig]; 11 km E of Muğla, pine wood + meadow, same collectors, 1.V.2013, 1♀ [det. Tschorsnig]; 13 km NE of Muğla, pine wood, same collectors, 23–27.VI.2015, 2♂ [det. Tschorsnig]; same locality and collectors, 2–3.V.2016, 1♀ [det. Lutovinovas].

**Distribution.** West Palaearctic–South Siberian–East Palaearctic (throughout Europe and Middle East to Russian Far East, see Herting & Dely-Draskovits 1993; Zeegers 2017), recorded from Turkey (Zwölfer 1932; Brown 1962; Dupuis 1963; Tuatay et al. 1972; Herting 1984, 1985; Lodos 1986; Herting & Dely-Draskovits 1993; Memişoğlu & Özer 1994; Şimşek et al. 1994; Öncüer & Kıvan 1995; Kıvan 1996; İslamoğlu & Kornoşor 2003, 2007; Gözüaçık et al. 2010; Gün 2010; Duman & Sertkaya 2015; numerous rearing records quoted by Kara & Tschorsnig 2003; Tschorsnig 2017; listed by Koçak & Kemal 2009, 2013, 2014).

#### *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].

**Distribution.** Holopalaeartic (Central and Southern Europe and Northern Africa to Mongolia, Russian Far East, see Herting & Dely-Draskovits 1993; Richter 2004), recorded from Turkey (Lodos 1961, 1986; Brown 1962; Dupuis 1963; Mesnil 1971; Dıkyar 1981; Herting & Tschorsnig 1993; Memişoğlu & Özer 1994; Memişoğlu et al. 1994; Öncüer & Kıvan 1995; Kıvan 1996; Kara & Alaoğlu 1999; İslamoğlu & Kornoşor 2003, 2007; Tschorsnig 2005; Korkmaz 2007; Gözüaçık et al. 2010; Atay & Kara 2014; Duman & Sertkaya 2015; numerous rearing records quoted by Kara & Tschorsnig 2003; Tschorsnig 2017).

#### *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; Gilasian 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* (Rohdendorf, 1947)

**Material.** Muğla province: Akyaka (d), pasture, leg. Barták & Kubík, 16–22.IX.2012, 1♀ [det. Tschorsnig]; Muğla, Kötekli (b), MT, leg. Dursun, V.2013, 1♀ [det. Tschorsnig]; Muğla, Kötekli (d), MT, leg. Kavak, IV.2015, 1♀ [det. Tschorsnig]; same locality, leg. Pala, V.2016, 1♀ [det. Lutovinovas]; Muğla, Kötekli (e), MT, leg. Barták & Kubík, IV.2016, 1♀ [det. Lutovinovas]; 13 km NE of Muğla, pine wood, same collectors, 23–27.VI.2015, 1♂ [det. Tschorsnig]; same locality and collectors, 2–3.V.2016, 1♂ [det. Lutovinovas]. – Published record: Antalya and Burdur provinces (Keçeci et al. 2007).

**Distribution.** Holopalaeartic (throughout Europe and Middle East to Russian Far East, China, see Herting & Dely-Draskovits 1993; Richter 2004; O'Hara et al. 2009), also recorded from other parts of Turkey (Herting & Tschorsnig 1993; Karsavuran 1986; Karsavuran & Kara 2003; Atay & Kara 2014; Balkan et al. 2015; Lekin et al. 2016b; rearing records quoted by Kara & Tschorsnig 2003; Tschorsnig 2017; listed by Koçak & Kemal 2009, 2013, 2014).

#### *Gymnosoma nitens* Meigen, 1824

**Material.** Muğla province: Akyaka (b), forest, SW + YPT, leg. Barták & Kubík, 16–27.V.2011, 1♂ [det. Tschorsnig]; Muğla, Kötekli (b), SW + YPT, same collectors, 29.IV–10.V.2013, 1♀ [det. Tschorsnig]; same locality, MT, leg. Dursun, V.2013, 1♀ [det. Tschorsnig]; Muğla, Kötekli (d), MT, leg. Barták & Kubík, 26.VI–3.VII.2015, 2♂ [det. Tschorsnig]; same locality, leg. Pala, V.2016, 1♂ [det. Lutovinovas]; Muğla, Kötekli (e), same collector, IV.2016, 3♂, 3♀ [det. Lutovinovas].

**Distribution.** Holopalaeartic (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 (Zimin 1966; Mesnil 1971; Tuatay et al. 1972; Herting 1984; Herting & Dely-Draskovits 1993; Herting & Tschorsnig 1993; Memişoğlu et al. 1994; rearing records quoted by Kara & Tschorsnig 2003; Tschorsnig 2017).



**\**Leucostoma anthracinum* (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).

***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, UA 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)**

**Material.** Aydın province: 8 km S of Çine, river bank, SW + YPT, leg. Barták & Kubík, 28–30.VI.2015, 1♀ [det. Tschorsnig]. – Denizli province: 10 km NE Denizli, leg. Halada, 4.VII.2006, 1♂ [det. Tschorsnig]. – Muğla province: Akyaka (d), pasture, YPT, leg. Barták & Kubík, 13–14.IX.2014, 1♂ [det. Tschorsnig]; Kizilyaka, on flowers, same collectors, 27.IV–4.V.2016, 1♂ [det. Lutovinovas]; Muğla, Kötekli (d), MT, leg. Pala, V.2016, 1♀ [det. Lutovinovas]; Muğla, Kötekli (e), MT, leg. Kavak, 19.VIII–17.IX.2015, 1♀ [det. Lutovinovas]; same locality, leg. Barták & Kubík, XI.2015, 2♀ [det. Lutovinovas]; Toparlar (c), leg. Civelek & Dursun, 26.IV.2006, 1♀ [det. Tschorsnig]; 13 km NE of Muğla, pine wood, leg. Barták & Kubík, 23–27.VI.2015, 4♂ [det. Tschorsnig].

**Distribution.** Nearly Cosmopolitan (see Herting & Dely-Draskovits 1993; O'Hara & Wood 2004; O'Hara et al. 2009; O'Hara & Cerretti 2016), recorded from Turkey (Kara & Alaoğlu 1999; Korkmaz 2007).

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

**Material.** Aydın province: 8 km S of Çine, river bank, leg. Barták & Kubík, 10–12.IX.2014, 1♂ [det. Tschorsnig]; same locality and collectors, SW, 29.IV–1.V.2016, 1♀ [det. Lutovinovas]. – Burdur province: 5 km NE Yeşilova, leg. Halada, 6.VII.2006, 2♂, 1♀ [det. Tschorsnig]. – Muğla province: Muğla, Kötekli (d), YPT, leg. Barták & Kubík, 26–27.VI.2015, 1♀ [det. Tschorsnig]; 12 km SW

of Muğla, on *Ferula communis*, same collectors, 23.V.2011, 1♀ [det. Tschorsnig]; 4 km N of Yatağan, on *Foeniculus* flowers, same collectors, 30.VI.2015, 1♂ [det. Tschorsnig].

**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 obesa* (Fabricius, 1798)**

**Material.** Muğla province: Akyaka (f), pasture, leg. Barták & Kubík, 27.IV.2016, 2♂, 1♀ [det. Lutovinovas]; Kizilyaka, on flowers, same collectors, 27.IV–4.V.2016, 1♀ [det. Lutovinovas]; 11 km E of Muğla, pine wood + meadow, same collectors, 1.V.2013, 1♀ [det. Tschorsnig].

**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; Lekin et al. 2016b).

***Phasia pusilla* Meigen, 1824**

**Material.** Aydın province: 8 km S of Çine, river bank, SW, leg. Barták & Kubík, 29.IV–1.V.2016, 1♀ [det. Lutovinovas]. – Muğla province: Kizilyaka, on flowers, same collectors, 27.IV–4.V.2016, 3♂ [det. Lutovinovas]; Muğla, Kötekli (d), MT, leg. Kavak, V.2015, 1♂ [det. Tschorsnig]; same locality, YPT, leg. Barták & Kubík, 26–27.VI.2015, 2♀ [det. Tschorsnig]; 4 km N of Yatağan, on *Foeniculus* flowers, same collectors, 30.VI.2015, 1♂ [det. Tschorsnig].

**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 subcoleoprata* (Linnaeus, 1767)]**

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

**Distribution.** Holopalaearctic (throughout Europe and Northern Africa to Russian Far East, see Herting & Dely-Draskovits 1993; Zeegers 2017), also recorded from other parts of Turkey (Lodos 1952, 1961, 1986; Brown 1962; Dupuis 1963; Tuatay et al. 1972; Tunçyurck-Soydanbay 1978; Herting 1984, 1985; Herting & Dely-Draskovits 1993; Herting & Tschorsnig 1993; Memişoğlu & Özer 1994; Şimşek et al. 1994; Öncüer & Kıvan 1995; Kıvan 1996; İslamoğlu & Kornoşor 2003, 2007; Sun & Marshall

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).

**\**Phasia venturii* (Draber-Moňko, 1965)**

**Material.** Muğla province: 13 km NE of Muğla, pine wood, leg. Barták & Kubík, 2–3.V.2016, 1♀ [det. Lutovinovas].

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

**\**Weberia digramma* (Meigen, 1824)**

**Material.** Muğla province: Muğla, Kötekli (b), SW + YPT, leg. Barták & Kubík, 17–22.V.2011 and 29.IV–10.V.2013, 9♂, 8♀ [det. Tschorsnig].

**Distribution.** West and Central Palaearctic (Central and Southern Europe and Middle East to Turkmenistan, 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).

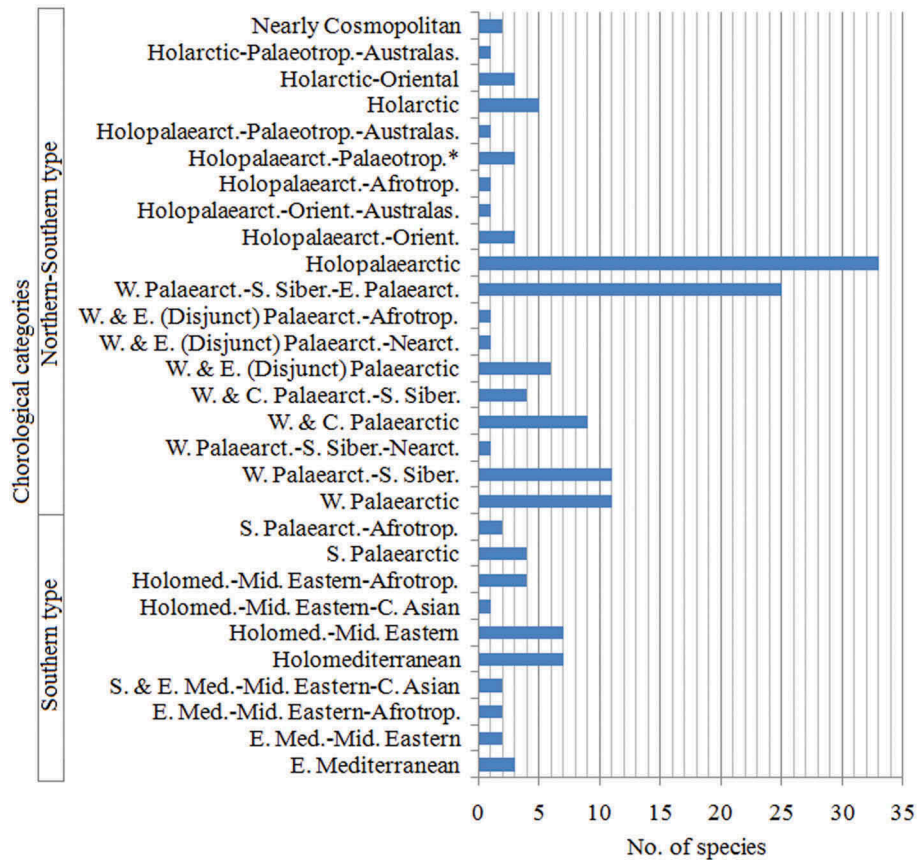
**Discussion**

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 *Clytiomya dupuisi*, from short triangular (as figured in Kugler's description) to digitiform as in the very near *Clytiomya 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; Avcı 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 galii* (Burdur), *Exorista nova* (Antalya), *Masicera sphingivora* (Burdur), *Nemorilla floralis* (Burdur), *Palesisa nudioculata* (Denizli), *Phryxe vulgaris* (Antalya, Denizli), *Pseudoperichaeta paleasioidea* (Burdur), *Spallanzania hebes* (Burdur), *Townsendiellomyia nidicola* (Denizli), *Zenillia libatrix* (Denizli), *Clauisella puella* (Burdur), *Linnaemya comta* (Denizli), *Loewia crassipes* (Antalya), *L. papei* (Antalya), *Siphona rossica* (Aydın), *Tachina praeceps* (Burdur), *Cyrtophloeoba ruricola* (Antalya, Burdur), *Cylindromyia pilipes* (Burdur), *Gymnosoma rungsi* (Antalya), *Phasia subcoleoprata* (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



**Figure 3.** Composition of chorological categories by numbers of tachinid species recorded in southwestern Turkey (including previously published sources). \**Periscepsia carbonaria* (Panzer) possibly represents a species complex, and its distribution should be treated with caution.

also present in northern parts of the Palaeartic region. The following 19 chorological categories belong here: Nearly Cosmopolitan – 2 species (1.3%); Holarctic–Palaeotropical–Australasian – 1 species (0.6%); Holarctic–Oriental – 3 species (1.9%); Holarctic – 5 species (3.2%); Holopalaeartic–Palaeotropical–Australasian – 1 species (0.6%); Holopalaeartic–Palaeotropical – 3 species (1.9%); Holopalaeartic–Afrotropical – 1 species (0.6%); Holopalaeartic–Oriental–Australasian – 1 species (0.6%); Holopalaeartic–Oriental – 3 species (1.9%); Holopalaeartic – 33 species (21.2%); West Palaeartic–South Siberian–East Palaeartic – 25 species (16.0%); West and East (Disjunct) Palaeartic–Afrotropical – 1 species (0.6%); West and East (Disjunct) Palaeartic–Nearctic – 1 species (0.6%); West and East (Disjunct) Palaeartic – 6 species (3.8%); West and Central Palaeartic–South Siberian – 4 species (2.6%); West and Central Palaeartic – 9 species (5.8%); West Palaeartic–South Siberian–Nearctic – 1 species (0.6%); West Palaeartic–South Siberian – 11 species (7.1%); West Palaeartic – 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 Palaeartic region. The following 10 chorological categories are distinguished: South Palaeartic–Afrotropical – 2 species (1.3%); South Palaeartic – 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*, *Ocytata palipes*, *Pexopsis aprica*, *Phebellia nigripalpis*, *Phorocera assimilis*, *Platymya antennata*, *P. fimbriata*, *Smidtia amoena*, *Spallanzania rectistylum*, *Thecocarcelia acutangulata*,

*Winthemia cruentata*; *Actia infantula*, *Ceromya bicolor*, *C. dorsigera*, *Clausicella suturata*, *Lydina aenea*, *Lypha dubia*, *Melisonera leucoptera*, *Palmonia hermonensis*, *Peribaea apicalis*, *Phytomytera cingulata*, *Siphona paucisetata*, *Tachina lurida*, *Triarthria setipennis*, *Trichactia pictiventris*, *Blepharomyia pagana*, *Campylocheta inepta*, *C. latigena*, *C. praecox*, *Wagneria cunctans*, *Catharosia albisquama*, *C. claripennis*, *Cylindromyia crassa*, *C. hermonensis*, *C. rufifrons*, *Leucostoma anthracinum*, *Phasia venturii*, and *Weberia digramma*. It should be noted that previous Turkish records of *L. anthracinum* by Kara (1998) and Kara & Alaoğlu (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: *Metacemyia 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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