

## CONTRIBUTIONS TO THE DOLICHOPODIDAE (DIPTERA) FAUNA OF THE MARMARA REGION OF TURKEY WITH NEW RECORDS

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### Abstract

Field surveys were carried out in the provinces of Balıkesir, Bilecik, Bursa, Çanakkale, Edirne, İstanbul, İzmit, Kırklareli, Sakarya, Tekirdağ and Yalova in the Marmara region of Turkey between 2009 and 2010. As a result of identification of the collected specimens, 17 genera and 31 species, belonging to Diaphorinae, Dolichopodinae, Hydrophorinae, Rhaphininae, Sciapodinae, Sympycninae, Xanthochlorinae subfamilies, were determined. Two species (*Hercostomus plagiatus* Loew, 1857 and *Poecilobothrus nobilitatus* Linnaeus, 1767) are new records for Turkey dolichopodid fauna.

KEY WORDS: Dolichopodidae, fauna, Marmara region, Turkey, new records

### Introduction

Dolichopodidae (long-legged flies) is one of the biggest families in the Diptera order. The body size ranges between 1-9 mm. They are known for the metallic-like appearance of the body, arista-type antenna, wing venation and male genitalia. Almost all long legged-flies are polyphagous predators feeding on various fine invertebrates including some pests. The adult flies live in different habitat types such as aquatic and semiaquatic areas, marshlands, woodlands, coastal dunes, grasslands and heathland (Grichanov, 2007).

This family contains 257 extant and 30 fossil genera, and 7945 valid species. About 1553 species are known from the Palearctic region (Grichanov, 2017). A checklist of Dolichopodidae in Turkey that contains one subspecies and 187 species was published in 2016 (Tonguc *et al.*, 2016a). Fourteen new species were added for the country after 2016 and three of them were recorded for the European part of Turkey (Tonguç *et al.* 2016b; Küçükberber *et al.* 2017; Grichanov & Ahmadi, 2017; Naglis & Negrobov 2017). So far, a total of 37 species have been known from the entire Marmara region, 30 species from the European part

(Kechev *et al.*, 2020) and 12 species from other parts of the region (Grichanov *et al.* 2007; Tonguc *et al.*, 2009; Grichanov and Tonguc, 2010a; 2010b; Tonguc *et al.*, 2010). The Dolichopodidae fauna of Turkey includes 203 species. This study aims to contribute to records of the Dolichopodidae fauna of the Marmara region and Turkey as a whole.

## Materials and Methods

This study was carried out in four sub-regions of the Marmara region (Çatalca-Kocaeli, Ergene, Yıldız Mountains and South Marmara) between July 2008 and December 2010. The research area includes İstanbul, Edirne, Kırklareli, Tekirdağ, Yalova, İzmit, Sakarya, Bilecik, Bursa, Balıkesir and Çanakkale provinces. Specimens were collected with an entomological hand net from different habitat types and preserved in insect envelopes or 70% ethyl alcohol in the research field. Some of the Dolichopodidae specimens brought to the laboratory were pinned, and others were preserved in different sizes of glasses or plastic jars. All of the specimens are stored in insect collection boxes in the Faculty of Science, Department of Biology, Laboratory of Zoology of Muğla Sıtkı Koçman University. A faunistic list of species distribution belonging to the provinces, Palearctic and Turkey distributions are given in the Results. Palearctic distribution is presented by Yang *et al.* (2006) and Grichanov (2007) according to following country abbreviations: Afghanistan (AF), Albania (AL), Algeria (DZ), Armenia (AM), Azerbaijan (AZ), Austria (AT), Belarus (BY), Belgium (BE), Bosnia-Herzegovina (BA), Bulgaria (BG), Croatia (HR), Czech Republic (CZ), Denmark (DK), Egypt (EG), England (EN), Estonia (EE), Finland (FI), France (FR), Georgia (GE), Greece (GR), Germany (DE), Holland (NL), Hungary (HU), Iraq (IQ), Iran (IR), Ireland (IE), Israel (IL), Italy (IT), Kazakhstan (KZ), Kyrgyzstan (KG), Lithuania (LT), Luxemburg (LU), Macedonia (MK), Moldova (MD), Morocco (MA), Norway (NO), Poland (PL), Portugal (PT), Romania (RO), Russia (RU), Slovakia (SK), Slovenia (SI), Spain (ES), Sweden (SE), Switzerland (CH), Syria (SY), Tajikistan (TJ), Tunisia (TN), Turkmenistan (TM), Turkey (TR), Ukraine (UA), Uzbekistan (UZ).

## Results

### Faunistic List

#### Diaphorinae Schiner, 1864

##### *Argyra argyria* (Meigen, 1824)

Material examined: Kırklareli, Pınarhisar, İslambeyli, 41°41' N, 27°37' E, 342 m, 28.07.2009, 1 ♂.

Palearctic Distribution: TR, AT, BE, BY, CH, CZ, DE, DK, EN, ES, FI, FR, GR, HR, HU, IT, SE, MA, MD, NL, NO, PL, RO, RU, SK, UA.

Turkey Distribution: Afyonkarahisar, Kütahya, Uşak.

##### *Diaphorus vitripennis* Loew, 1859

Material examined: Bursa, Osmangazi, Demirtaş Village, Baraj Lake, 40°17' N, 29°06' E, 135 m, 27.04.2009, 1 ♂.

Palearctic Distribution: TR, AT, CH, DZ, FR, HU, IT, KZ, PT, RO, UZ.

Turkey Distribution: Aydın (Buharkent), Kars.

Dolichopodinae Latreille, 1809

*Dolichopus griseipennis* Stannius, 1831

Material examined: Bursa, Osmangazi, Uludağ Road 5 km, 40°08' N, 29°01' E, 875 m, 19.05.2009, 1 ♂; Uludağ, Hüseyinalan Village, 40°07' N, 29°01' E, 900 m, 06.08.2010, 1 ♂; Uludağ 2. Oteller Place, 40°06' N, 29°09' E, 1780 m, 06.08.2010, 1 ♀; Uludağ 2. Oteller Place, 40°06' N, 29°09' E, 1780 m, 07.08.2010, 1 ♂, 2 ♀♀; Uludağ Road, 40°09' N, 29°01' E, 755 m, 06.08.2010, 2 ♂♂, 2 ♀♀; Uludağ M. P. Road, 40°08' N, 29°01' E, 875 m, 06.08.2010, 1 ♂; İnegöl, Güneykestane, 39°56' N, 29°43' E, 550 m 03.08.2010, 1 ♂; Karacabey, Yenikaraağaç village, 40°13' N, 28°37' E, 45 m, 07.08.2010, 2 ♂♂, 3 ♀♀; Mustafakemalpaşa, Muradiyesarnıç Village, 39°55' N, 28° 23' E, 247 m, 09.07.2008, 3 ♂♂, Çanakkale, Biga, Çelikgürü Village, 40°19' N, 27°02' E, 46 m, 25.04.2010, 1 ♀; Bayramiç, Çandır, 39°46' N, 26°34' E, 146 m, 26.07.2009, 1 ♂; Yenice, 39°56' N, 27°13' E, 281 m, 26.07.2009, 3 ♂♂, 1 ♀; Kocaeli, Gebze, Yağcılar Village, 19.05.2010, 1 ♂, 3 ♀♀; Sakarya, Adapazarı, Çaybaşıyeniköy, 40°40' N, 30°27' E, 75 m, 17.05.2010, 1 ♀.

Paleartic Distribution: TR, AM, AT, AZ, BA, BE, BG, CH, CZ, DE, DK, DZ, EE, EN, ES, FI, FR, GE, GR, HR, HU, IE, KZ, LU, MA, MK, NL, NO, PL, RO, RU, SE, SI, SK, TN.

Turkey Distribution: Burdur, Muğla, Sinop.

*Dolichopus salictorum* Loew, 1871

Material examined: Bursa, Osmangazi, Uludağ 2. Oteller Place, 40°06' N, 29°09' E, 1780 m, 07.08.2010, 4 ♂♂, 1 ♀, İnegöl, 39°52' N, 29°39' E, 1146 m, 03.08.2010, 1 ♂, 1 ♀.

Paleartic Distribution: TR, BG, CZ, HU, IT, PL, RO, SK.

Turkey Distribution: Adıyaman (Naglis, 2011).

*Dolichopus signifer* Haliday, 1832

Material examined: Çanakkale, Eceabat, Küçükcanafartalar, 40°16' N 26°17' E, 25 m, 11.04.2010, 1 ♂; Balıkesir, Edremit, Altınoluk, Kaz Mountains, Güvercin Place, 39°41' N 26°47' E, 1147 m, 27.08.2009, 1 ♀.

Paleartic Distribution: TR, AM, AT, BE, BG, CH, CZ, DE, EN, ES, FR, GE, GR, HU, IE, IT, KZ, MA, NL, NO, PL, RO, RU, SE, SK, TJ, TM, UA, UZ.

Turkey Distribution: Burdur, Edirne.

*Hercostomus fulvicaudis* (Walker, 1851)

Material examined: Bursa, İnegöl, Güneykestane, 39°56' N 29°43' E, 550 m 03.08.2010, 7 ♀♀.

Paleartic Distribution: TR, AT, BE, CZ, EN, FR, DE, NL, PL, RO, SK, SE, TM, TJ, UA.

Turkey Distribution: Afyonkarahisar, Kütahya.

*Hercostomus gracilis* (Stannius, 1831)

Material examined: Balıkesir, Dursunbey, 39°36' N 28°38' E, 595 m, 15.07.2010, 1 ♂, 1 ♀; Edremit, Kaz Mountains, 39°41' N 27°09' E, 560 m 26.08.2009, 1 ♂; Çınarlıhan Place, 39°41' N 27°10' E, 660 m, 08.08.2010, 7 ♂♂; Mehmetalan Village, 39°40' N 26°58' E, 335 m, 12.07.2008, 3 ♂♂, 2 ♀♀; Bursa,

Osmangazi, Karaislah Village, 40°02' N 29°05' E, 815 m, 25.08.2009, 1 ♂; Uludağ- Soğukpınar Village, 40°03' N 29°07' E, 1025 m 25.07.2009, 1 ♂; Uludağ, Soğukpınar-Keles Road 15.Km, 39°58' N 29°13' E, 965 m 25.07.2009, 1 ♂, 1 ♀.

Paleartic Distribution: TR, AM, AT, BE, BG, CZ, DK, EN, ES, FR, DE, GR, HU, IT, NL, PL RU, SE, TJ, TM, UA.

Turkey Distribution: Aydın, Burdur (Grichanov *et al.*, 2007).

*Hercostomus longiventris* (Loew, 1857)

Material examined: Sakarya, Geyve, Doğançay village, 40°36' N 30°19' E, 45 m, 25.10.2008, 1 ♂.

Paleartic Distribution: TR, AT, BA, BE, CH, CZ, DE, FR, GR, HR, IT, NL, HU, MA, MK, PL, RO, RU, SI, TJ.

Turkey Distribution: Muğla, Artvin (Grichanov *vd.*, 2007).

*Hercostomus plagiatus* (Loew, 1857)

Material examined: Bursa, Osmangazi, Uludağ National Park, Sarıalan, 40°08' N 29°06' E, 1620 m, 06.08.2010, 1 ♂.

Paleartic Distribution: TR, AT, BE, CH, CZ, DE, EN, ES, FR, HU, IT, MK, NL, RO, SI, TN.

Turkey Distribution: New records for Turkey.

*Hercostomus phoebus* Parent, 1927

Material examined: Bursa, Osmangazi, Uludağ, Soğukpınar-Keles Road 15. Km, 39°58' N 29°13'E, 965 m 25.07.2009, 1 ♂, 1 ♀; Kestel, Hüseyinalan village, 39°45' N 29°12' E, 746 m, 25.07.2009, 2 ♂♂, 2 ♀♀.

Paleartic Distribution: TR, AM.

Turkey Distribution: Ankara, Antalya, Burdur, Muğla (Parent, 1927; Hollis, 1963; Grichanov *vd.*, 2007).

*Hercostomus rusticus* (Meigen, 1824)

Material examined: Çanakkale, Bayramiç, Evciler town, Kaz Mountains, 39°41' N 26°47' E, 1265 m, 19.08.2008, 1 ♂.

Paleartic Distribution: TR, AM, AT, BA, BE, BG, BY, CH, CZ, DE, EE, ES, FR, GE, GR, HR, IT, KZ, MK, MN, NL, PL, RO, RU, SI, SK, UK.

Turkey Distribution: Rize (Naglis, 2011).

*Hercostomus thraciensis* Kechev & Negrobov, 2015

Material examined: Bursa, Mustafakemalpaşa, Yalıntaş village, 39°58' N 28°22' E, 253 m, 28.04.2009, 1 ♂.

Paleartic Distribution: TR, BG.

Turkey Distribution: Manisa

*Ortochile nigrocoerulea* Latreille, 1809

Material examined: Bursa, Mustafakemalpaşa, Yalıntaş Village, 39°58' N 28°22' E, 253 m, 28.04.2009, 3 ♂♂, 4 ♀♀; Balıkesir, Gönen, Gündoğan Village, 40°09' N 27°38' E, 45 m, 25.04.2010, 1 ♂, 3 ♀♀; Bilecik,

Osmaneli, Gaziler Village, 40°24' N 29°56' E, 310 m, 16.05.2010, 1 ♂, 2 ♀♀; Çanakkale, Ayvacık, Kocaköy, 39°29' N 26°09' E, 265 m, 10.04.2010, 1 ♂, 1 ♀.

Paelearctic Distribution: TR, AT, BE, SE, DK, DZ, EN, ES, FR, GR, HR, HU, IL, IT, MK, PL, TN.

Turkey Distribution: Aydın, Kahramanmaraş.

*Poecilobothrus nobilitatus* (Linnaeus, 1767)

Material examined: Bursa, Osmangazi, Uludağ- Soğukpınar Village, 40°03' N 29°07' E, 1025 m 25.07.2009, 2 ♂♂; İnegöl, Eskikaracaköy, Domaniç Road, 39°54' N 29°40' E, 1125 m, 24.07.2009, 1 ♂.

Paelearctic Distribution: TR, AT, BE, CH, CZ, DE, DK, EN, ES, FR, HU, IE, IT, LU, MK, NL, PL, RO, RU, SE, SK, UK.

Turkey Distribution: New records for Turkey.

*Poecilobothrus principalis* (Loew, 1861)

Material examined: Bilecik, Bozüyük, Muratdere, 39°53' N 29°53' E, 875 m, 05.08.2010, 1 ♂.

Paelearctic Distribution: TR, AT, BE, BG, CZ, DE, EN, ES, FR, HU, IL, IT, NL, PL, RO, RU, UA.

Turkey Distribution: Kütahya.

*Poecilobothrus regalis* (Meigen, 1824)

Material examined: Balıkesir, Manyas, Haydar Village, 40°04' N 28°00' E, 29 m, 03.06.2009, 4 ♂♂, 2 ♀♀; İvrindi, Soğanbükü Village, Güngörmez Stream, 39°36' N 27°32' E, 207 m, 23.6.2009, 5 ♂♂, 1 ♀; Bilecik, Bozüyük, 39°51' N 29°58' E, 850 m, 07.07.2010, 3 ♂♂, 2 ♀♀; Gölpazarı, Karaahmetler Village, 40°19' N 30°27' E, 740 m, 17.07.2008, 2 ♂♂, 3 ♀♀; Muratdere, 39°53' N 29°53' E, 875 m, 05.08.2010, 12 ♂♂, 2 ♀♀; Bursa, Mustafakemalpaşa, Sinansarnıç Village, 40°03' N 28°40' E, 466 m, 24.06.2009, 4 ♂♂, 3 ♀♀; Nilüfer, Kayapa Village, 40°10' N 28°51' E, 128 m, 24.06.2009, 17 ♂♂, 5 ♀♀; İznik, Derbent Village, 40°21' N 29°40' E, 275 m, 18.07.2008; 5 ♂♂, 13 ♀♀; 26.06.2009, 7 ♂♂; Osmangazi, Uludağ, Soğukpınar-Keles Road 15.Km, 39°58' N 29°13' E, 965 m 25.07.2009, 1 ♂, 1 ♀; Çanakkale, Bayramiç, Ağaçköy, 39°47' N 26°34' E, 123 m, 26.07.2009, 2 ♀♀; Kocaeli, Karamürsel, Valide Köprü, 40°34' N 29°31' E, 130 m, 05.06.2009, 5 ♂♂, 2 ♀♀; Sakarya, Taraklı, Çamtepe Village, 40°21' N 30°31' E, 460 m, 17.07.2008, 3 ♂♂; Geyve, Çamlık Village, 40°34' N 30°21' E, 436 m, 06.06.2009, 5 ♂♂; İstanbul, Silivri, Değirmenköy, 41°07' N 28°01' E, 110 m, 16.07.2008, 4 ♂♂, 6 ♀♀; Yalova, Altınova, Fevziye Village, 40°38' N 29°30' E, 45 m, 17.07.2008, 3 ♀♀.

Paelearctic Distribution: TR, AT, BE, BG, CZ, DE, FR, GE, GR, IR, IT, MK, RO, RU, SK, UA, UZ.

Turkey Distribution: Burdur, Denizli, Isparta, Muğla (Grichanov vd., 2007), Antalya (Parvu ve Popescu-Mirceni, 2006; Grichanov vd., 2007).

*Sybstroma sphenopterus* (Loew, 1859)

Material examined: Bursa, Osmangazi, Uludağ Road 7. Km, 40°09' N 29°01' E, 780 m, 09.07.2008, 1 ♂; Kocaeli, İzmit, Maşukiye Village, Şelale Place, 40°41' N 30°07' E, 250 m, 23.08.2009, 2 ♂♂.

Paelearctic Distribution: TR, AT, CZ, DEHU, IT, PL, RO.

Turkey Distribution: Çanakkale (Tonguç vd., 2009), Kars (Naglis, 2011).

## Hydrophorinae Lioy, 1864

*Hydrophorus balticus* (Meigen, 1824)

Material examined: Balıkesir, Edremit, Kaz Mountains, 39°41' N 27°09' E, 560 m, 26.08.2009, 3 ♀♀; Hanlar Village, 39°41' N 27°09' E, 625 m, 11.07.2008, 2 ♂♂; Bursa, Osmangazi, Uludağ National Park, 1.Oteller Place, 40°06' N 29°08' E, 1790 m, 25.06.2009, 7 ♂♂, 18 ♀♀; Çanakkale, Lapseki, Kocabaşlar Village, 40°17' N 26°50' E, 565 m, 26.04.2010, 2 ♂♂, 1 ♀; Bayramiç, Evciler Town, Kaz Mountains, Düden Place, 39°41' N 26°48' E, 1265 m, 27.08.2009, 9 ♂♂, 8 ♀♀; Kocaeli, İzmit, Maşukiye Village, Kartepe Road 13.Km, 40°39' N 30°07' E, 1184 m, 23.08.2009, 1 ♂, 1 ♀; Kartepe, 40°39' N 30°07' E, 1190 m, 09.07.2010, 5 ♂♂, 6 ♀♀.

Palearctic Distribution: TR, AF, AL, AT, BE, BG, CH, CY, CZ, DE, DK, EE, EN, ES, FI, FR, GE, GR, HU, IE, IL, IT, MA, NL, NO, PL, RO, RU, SE, UA.

Turkey Distribution: Aydın, Denizli, Isparta, Rize, Antalya, Manisa.

*Hydrophorus praecox* (Lehmann, 1822)

Material examined: Bilecik, Bozüyük, 39°51' N 29°58' E, 850 m, 07.07.2010, 1 ♀.

Palearctic Distribution: TR, AT, BE, BG, CH, CN, CY, CZ, DE, DK, EE, EG, EN, ES, FI, FR, GE, HU, IE, IL, IQ, IR, KZ, NL, NO, PL, RO, RU, SE, SK, UA.

Turkey Distribution: Bolu, Burdur, Antalya.

*Liancalus virens* (Scopoli, 1763)

Material examined: Balıkesir, Edremit, Kaz mountains, 39°41' N 27°09' E, 650 m, 08.08.2010, 1 ♂, 1 ♀; Bilecik, Bozüyük, Kozpınar Village, 39°54' N 29°47' E, 540m, 21.08.2009, 1 ♀; Bursa, Osmangazi, Uludağ National Park, Sarıalan, 40°08' N 29°06' E, 1620 m, 06.08.2010, 1 ♀; Çanakkale, Gökçeada, Aydıncık, 40°10' N 25°54' E, 170 m, 13.07.2010, 1 ♂, 1 ♀; Kocaeli, Karamürsel, Oluklu Village, 40°39' N 29°35' E, 375 m, 04.05.2009, 3 ♂♂, 1 ♀.

Palearctic Distribution: TR, AT, BE, BG, CH, CY, CZ, DE, DK, EN, ES, FI, FR, GE, GR, HU, IE, IL, IT, KG, KZ, LU, SE, MA, NL, NO, PL, RO, RU, SK, TJ, TN, UA.

Turkey Distribution: Muğla, Manisa.

*Orthoceratium lacustre* (Scopoli, 1763)

Material examined: Çanakkale, Bayramiç, Evciler Town, Kaz Mountains, 6. Km, 39°43' N 26°47' E, 740 m, 19.08.2008, 1 ♀; Kaz Mountains, 16. Km, 39°42' N 26°48' E, 1185 m, 13.07.2008, 3 ♂♂, 6 ♀♀.

Palearctic Distribution: TR, AL, AT, AZ, BE, BG, CY, DE, DK, EN, ES, IE, FI, FR, GR, IL, IT, NL, PT, TN, UA.

Turkey Distribution: Afyonkarahisar, Kütahya.

*Scellus notatus* (Fabricius, 1781)

Material examined: Balıkesir, Gönen, Gündoğan Village, 40°09' N 27°38' E, 45 m, 25.04.2010, 1 ♂; Bursa, Osmangazi, Uludağ National Pak 10. Km, 40°06' N 29°06' E, 1740 m, 25.07.2009, 1 ♀; Bakacak Place, 40°07' N 29°08' E, 1745 m, 25.06.2009, 2 ♀♀; Çanakkale, Yenice, Umurlar Village, 39°53' N 27°22' E, 220 m, 26.04.2010, 1 ♂.

Palearctic Distribution: TR, AT, BE, BG, DE, DK, EN, FR, GR, HU, IE, IT, NL, PT, RO, RU, SE, SK, UA.

Turkey Distribution: Afyonkarahisar, Manisa.

### Rhaphiniinae Bigot, 1852

#### *Rhaphium appendiculatum* Zetterstedt, 1849

Material examined: Bursa, Osmangazi, Uludağ- Soğukpınar Village, 40°03' N 29°07' E, 1025 m 25.07.2009, 1 ♂, 1 ♀; Çanakkale, Bayramiç, Evciler Town, Kaz Mountains, 11. Km, 39°42' N 26°47' E, 880 m, 27.08.2009, 1 ♂.

Palearctic Distribution: TR, AF, AL, AT, BG, CZ, DE, DK, EN, ES, FI, FR, GE, GR, HU, IE, IR, IT, MA, NL, PL, RO, RU, SE, UA.

Turkey Distribution: Antalya, İzmir, Manisa.

#### *Rhaphium calliginosum* Meigen, 1824

Material examined: Bilecik, Söğüt, Dereboyu Village, 39°59' N 30°08' E, 1005 m, 02.05.2009, 1 ♂.

Palearctic Distribution: TR, AL, AM, AT, BE, BG, CH, CZ, DE, DK, EE, EN, ES, FI, FR, GR, HU, IE, IL, IT, MA, NL, NO, SK, PL, RO, RU, SE, SY, UA.

Turkey Distribution: Burdur, İzmir.

### Sciapodinae Becker, 1917

#### *Sciapus bellus* (Loew, 1873)

Material examined: Sakarya, Karasu, Limandere Village, 40°59' N 30°36' E, 18 m, 03.05.2009, 1 ♂.

Palearctic Distribution: TR, AT, CH, CZ, DE, GR, HU, IT, PL, RO, SK.

Turkey Distribution: Sakarya.

### Sympycninae Aldrich, 1905

#### *Campsicnemus curvipes* (Fallén, 1823)

Material examined: Bursa, Osmangazi, Uludağ- Soğukpınar Village, 40°03' N 29°07' E, 1025 m 25.07.2009, 1 ♂, 2 ♀♀; Sakarya, Kaynarca, Kulaklı Village, 41°04' N 30°23' E, 17 m, 03.05.2009, 1 ♂; Taraklı, Çamtepe Village, 40°21' N 30°31' E, 460 m, 17.07.2008, 1 ♂.

Palearctic Distribution: TR, AL, AT, AM, AZ, BE, BG, BY, CH, CZ, DE, DK, EE, EN, ES, FI, FR, GR, HU, IE, IT, LU, MA, MK, NL, NO, PL, RO, RU, SE, SI, SK, UA.

Turkey Distribution: Bolu, Antalya, Manisa.

#### *Campsicnemus magius* (Loew, 1845)

Material examined: Bursa, Mustafakemalpaşa, Muradiyesarnıç Village, 39°55' N 28°23' E, 265 m, 20.10.2008, 1 ♂.

Palearctic Distribution: TR, AT, BE, BG, CZ, DE, EN, ES, FR, HU, IL, IT, NL, RO, RU, SI, TJ, TM, UA.

Turkey Distribution: Sakarya (Korucuk).

*Sympycnus pulicarius* (Fallén, 1823)

Material examined: Bursa, Osmangazi, Uludağ Road 5. Km, 40°08' N 29°01' E, 875 m, 19.05.2009, 1 ♂; Uludağ- Soğukpınar Village, 40°03' N 29°07' E, 1025 m 25.07.2009, 1 ♂; Çanakkale, Yenice, Kalkım Town, Kaz Mountains, 39°41' N 27°09' E, 625 m, 17.10.2008, 3 ♂♂, 3 ♀♀.

Palearctic Distribution: TR, AT, BE, BG, CH, CZ, DE, DK, EE, EN, ES, FI, FR, GR, HU, IE, IT, LU, NO, NL, PL, RU, RO, SE, SK, UA.

Turkey Distribution: Aydın, Muğla, Van.

*Syntormon denticulatus* (Zetterstedt, 1843)

Material examined: Çanakkale, Ayvacık, Gülpınar Tuzla Village, 39°34' N 26°10' E, 12 m, 10.04.2010, 1 ♀; Eceabat, Küçükanafartalar, 40°16' N 26°17' E, 25 m, 11.04.2010, 1 ♀; Bursa, Mustafakemalpaşa, Muradiyesarnıç Village, 39°55' N 28°23' E, 265 m, 20.10.2008, 1 ♂.

Palearctic Distribution: TR, AF, AM, BG, DE, EE, FR, IL, IT, Middle Asia, PL, RO, RU, UA.

Turkey Distribution: Muğla, Manisa.

*Syntormon pallipes* (Fabricius, 1794)

Material examined: Balıkesir, Edremit, Altınoluk, Kaz Mountains, Güvercin Place, 39°41' N 26°47' E, 1147 m, 27.08.2009, 16 ♂♂, 9 ♀♀; Bilecik, Bozüyük, Sarıdayı Village, 39°55' N 29°48' E, 908 m, 26.06.2009, 1 ♂, 1 ♀; Bursa, Osmangazi, Uludağ National Park, Bakacak stream, 40°07' N 29°08' E, 1745 m, 24.08.2009, 5 ♂♂, 5 ♀♀; Çanakkale, Bayramiç, Evciler Town, Kaz Mountains, 16. Km, 39°42' N 26°48' E, 1185 m, 13.07.2008, 10 ♂♂, 9 ♀♀; Kocaeli, Karamürsel, Valide Köprü, 40°34' N 29°31' E, 130 m, 05.06.2009, 1 ♀; Sakarya, Taraklı, Çamtepe Village, 40°21' N 30°31' E, 460 m, 17.07.2008, 7 ♂♂.

Palearctic Distribution: TR, AL, AF, AT, BE, BG, CH, CN, CZ, DE, DK, EE, EG, EN, ES, FI, FR, GE, GR, HU, IE, IL, IQ, IR, IS, IT, MA, NL, NO, PL, PT, RO, RU, SE, SI, SK, TJ, UA, UZ.

Turkey Distribution: Sakarya (Korucuk), Isparta, Burdur, Denizli, Muğla, Antalya, Bergama, Adıyaman, Ankara, Van, Hakkari, Manisa.

Xanthochlorinae Loew, 1857

*Xanthochlorus tenellus* (Wiedemann, 1817)

Material examined: Çanakkale, Bayramiç, Evciler Town, Kaz Mountains, Düden Place, 39°41' N 26°47' E, 1265 m, 19.08.2008, 1 ♂; Sakarya, Akyazı, Sülüklü Lake Natural Reserve, 40°31' N 30°52' E, 1062 m, 22.08.2009, 1 ♀.

Palearctic Distribution: TR, AT, BE, BG, CH, CZ, DE, DK, EE, EN, FI, FR, GE, HU, IE, IT, LT, NL, NO, PL, RO, RU, SE, SK, UA.

Turkey Distribution: Kütahya.



## Discussion

Seven subfamilies, 17 genera and 31 species were determined as a result of identification of collected specimens from the research area. *Hercostomus plagiatus* and *Poecilobothrus nobilitatus* are new records for Turkey, whereas 14 species are new for the Marmara region. Fifty-four species are now known from the Marmara region with these additional records (Table I). In Table 1, new records for the investigated provinces are marked with an asterisk (\*) and new records for Turkey are marked with a double asterisk (\*\*) in faunistic remarks.

Respectively 8, 7, 20, 13, 1, 6, 8 and 1 species from Balıkesir, Bilecik, Bursa, Çanakkale, İstanbul, Kocaeli, Sakarya and Yalova were collected. Thus, 8 species are known from Balıkesir, 7 from Bilecik, 24 from Bursa, 20 from Çanakkale, 4 from Edirne, 1 from İstanbul, 23 from Kırklareli, 7 from Kocaeli, 11 from Sakarya, 7 from Tekirdağ and 1 from Yalova (Fig 1).

Table I. Distributions of identified species by provinces in Marmara Region.

Species	Balıkesir	Bilecik	Bursa	Çanakkale	Edirne	İstanbul	Kırklareli	Kocaeli	Sakarya	Tekirdağ	Yalova
<i>Argyra argentina</i> (Meigen, 1824)							X				
<i>A. argyria</i> (Meigen, 1824)									X*		
<i>A. diaphana</i> (Fabricius, 1775)					X						
<i>Chrysotus pulchellus</i> Kowarz, 1874									X		
<i>Diaphorus pilitibius</i> Negrobov et Maslova, 2005									X		
<i>D. vitripennis</i> Loew, 1859			X*								
<i>Dolichopus griseipennis</i> Stannius, 1831			X*	X*			X	X*	X*		
<i>D. latilimbatus</i> Macquart, 1827								X			
<i>D. nubilus</i> Meigen, 1824							X				
<i>D. plumipes</i> (Scopoli, 1763)							X				
<i>D. salictorum</i> Loew, 1871			X*								
<i>D. signifer</i> Haliday, 1832	X*			X*			X				
<i>Gymnopternus celer</i> (Meigen, 1824)				X							
<i>Hercostomus fulvicaudis</i> (Walker, 1851)			X*								
<i>H. gracilis</i> (Stannius, 1831)	X*		X*				X				
<i>H. libanica</i> Parent, 1938				X			X				
<i>H. longiventris</i> (Loew, 1857)									X*		
<i>H. plagiatus</i> (Loew, 1857)			X*								
<i>H. phoebus</i> Parent, 1927			X*								
<i>H. rusticus</i> (Meigen, 1824)				X*							
<i>H. stroblianus</i> Becker, 1917							X				
<i>H. thracensis</i> Kechev & Negrobov, 2015			X*								
<i>Ortochile nigrocoerulea</i> Latreille, 1809	X*	X*	X*	X*							
<i>Poecilobothrus chrysozygos</i> (Wiedemann, 1817)							X				

Table I – continued

Species	Balkesir	Bilecik	Bursa	Çanakkale	Edirne	İstanbul	Kırklareli	Kocaeli	Sakarya	Tekirdağ	Yalova
<i>P. nobilitatus</i> (Linneaus, 1767)			X*								
<i>P. principalis</i> (Loew, 1861)		X*					X				
<i>P. regalis</i> (Meigen, 1824)	X*	X*	X*	X*	X	X*	X	X*	X*	X	X*
<i>Sybstroma discipes</i> (Germar, 1821)			X	X							
<i>S. sphenopterus</i> (Loew, 1859)			X*	X			X	X*			
<i>S. transcaucasica</i> Stackelberg, 1941			X								
<i>Tachytrectus genualis</i> Loew, 1857									X		
<i>T. notatus</i> (Stannius, 1831)										X	
<i>Hydrophorus balticus</i> (Meigen, 1824)	X*		X*	X*			X	X*			
<i>H. praecox</i> (Lehmann, 1822)		X*									
<i>Gymnopternus celer</i> (Meigen, 1824)				X							
<i>Liancalus virens</i> (Scopoli, 1763)	X*	X*	X*	X*			X	X*			
<i>Orthoceratium lacustre</i> (Scopoli, 1763)				X*							
<i>Scellus notatus</i> (Fabricius, 1781)	X*		X*	X*			X				
<i>Schoenophilus versutus</i> Haliday, 1851										X	
<i>Neurigona erichsoni</i> Zetterstedt, 1843			X	X							
<i>N. nubifera</i> (Loew, 1869)					X						
<i>Chrysotimus molliculus</i> (Fallén, 1823)							X				
<i>Peloropodes acuticornis</i> (Oldenberg, 1916)							X			X	
<i>Rhaphium appendiculatum</i> Zetterstedt, 1849			X*	X*			X				
<i>R. brevicorne</i> Curtis, 1835										X	
<i>R. calliginosum</i> Meigen, 1824		X*								X	
<i>Sciapus bellus</i> (Loew, 1873)									X*		
<i>Campsicnemus curvipes</i> (Fallén, 1823)			X*				X		X*		
<i>C. magius</i> (Loew, 1845)			X*								
<i>Sympycnus pulicarius</i> (Fallén, 1823)			X*	X*			X				
<i>Syntormon denticulatus</i> (Zetterstedt, 1843)			X*	X*							
<i>S. pallipes</i> (Fabricius, 1794)	X*	X*	X*	X*	X		X	X*	X*	X	
<i>Teuchophorus simplex</i> Mik, 1880							X				
<i>Xanthochlorus tenellus</i> (Wiedemann, 1817)				X*			X		X*		
<b>Total</b>	<b>8</b>	<b>7</b>	<b>24</b>	<b>20</b>	<b>4</b>	<b>1</b>	<b>23</b>	<b>7</b>	<b>11</b>	<b>7</b>	<b>1</b>

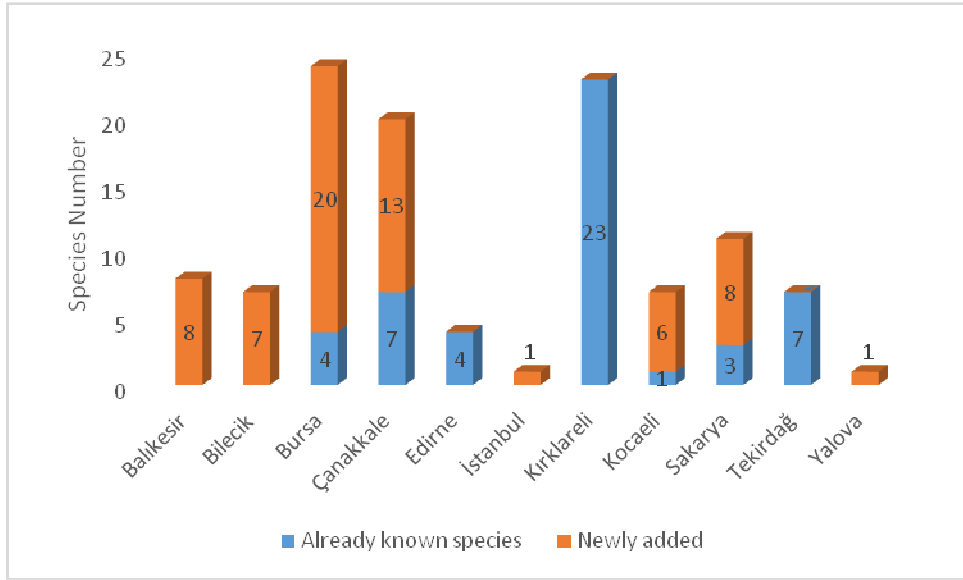


Figure 1. The number of already-known and newly-added species by provinces.

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## ДОПРИНОС ПОЗНАВАЊУ ФАУНЕ DOLICHOPODIDAE (DIPTERA) РЕГИОНА МАРМАРА У ТУРСКОЈ СА НОВИМ НАЛАЗИМА

АЛПЕР ТОНГУЧ

### Извод

Теренска истраживања спроведена су у провинцијама Баликесир, Билецик, Бурса, Чанакале, Едирне, Истанбул, Измит, Киркларели, Сакариа, Текирдаг и Јалова у регији Мармара у Турској у периоду од 2009. до 2010. године. Идентификацијом прикупљених примерака утврђено је 17 родова и 31 врста из подфамилија Diaphorinae, Dolichopodinae, Hydrophorinae, Rhaphininae, Sciapodinae, Sympycninae, Xanthochlorinae. Две врсте (*Hercostomus plagiatus* Loew, 1857 и *Poecilobothrus nobilitatus* Linnaeus, 1767) су нови налази за фауну долихоподида Турске.

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