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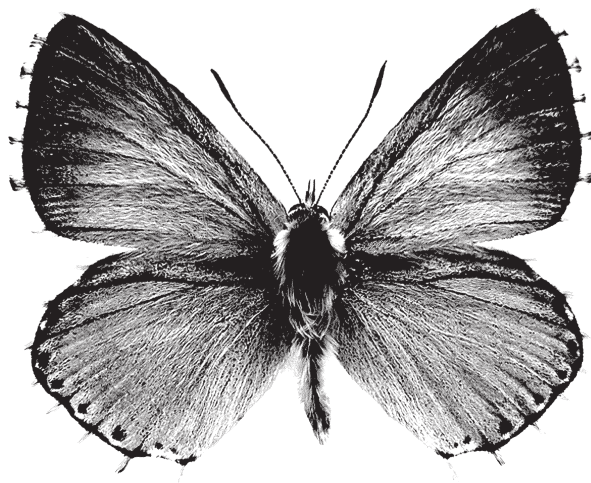


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## Review of the Turkish Dolichopodidae (Diptera) with first description of male *Hercostomus phoebus* Parent, 1927, new synonyms and new records

### Обзор фауны турецких Dolichopodidae (Diptera) с описанием самца *Hercostomus phoebus* Parent, 1927, новыми синонимами и новыми указаниями

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**Key words:** Diptera, Dolichopodidae, Palaearctic Region, Turkey, new synonyms, new records.

**Ключевые слова:** Diptera, Dolichopodidae, Палеарктика, Турция, новые синонимы, новые указания.

**Abstract.** Male *Hercostomus phoebus* Parent, 1927 hitherto known only from female is described for the first time. Two new synonyms are proposed: *Dolichopus thalhammeri* Knézy, 1929 (= *Dolichopus balius* Meuffels, 1982, **syn. n.**); *Tachytrechus beckeri* Lichtwardt, 1917 (= *Tachytrechus gussakovskii* Stackelberg, 1941, **syn. n.**). New records for 48 dolichopodid species collected in Turkey are given. The fauna of the region comprises now 69 species.

**Резюме.** Впервые описан самец *Hercostomus phoebus* Parent, 1927, ранее известный по самке. Предложены два новых синонима: *Dolichopus thalhammeri* Knézy, 1929 (= *Dolichopus balius* Meuffels, 1982, **syn. n.**); *Tachytrechus beckeri* Lichtwardt, 1917 (= *Tachytrechus gussakovskii* Stackelberg, 1941, **syn. n.**). Приведены новые данные о распространении мух-зеленушек в Турции. Таким образом, фауна страны включает 69 видов.

### Introduction

Until recently, 21 species were known from Turkey [Negrobov, 1991]. Olejníček (2004) has added 10 species new for the country. Intensive treatment of the newly collected material from all over the Turkish territory has revealed a lot of new species for the country. Tonguç et al. [2007] recorded 6 species for Turkey, and Grichanov [2007] mentioned 15 species. In this paper we give new data on the distribution of 48 species, mainly new for the country. As a result, the fauna of the region comprises now 69 species. Nevertheless, the real number may reach more than 250 species following special expeditions covering a wider geographical area of the country. For comparison, so far 207 species are known for the Russian Northwestern Caucasus [Grichanov et al., 2007] and 265 for Romania [Pârnu, 2002]. Therefore, a discussion on the zoogeography

of Turkish dolichopodid fauna is premature.

Below we also describe male of *Hercostomus phoebus* Parent, 1927, known previously by female [Parent, 1927]. Two new synonyms are proposed: *Dolichopus thalhammeri* Knézy, 1929 (= *Dolichopus balius* Meuffels, 1982, **syn. n.**); *Tachytrechus beckeri* Lichtwardt, 1917 (= *Tachytrechus gussakovskii* Stackelberg, 1941, **syn. n.**).

### Materials and methods

The material of this study was collected during 2003–2007 expeditions in aquatic, semiaquatic and forest habitats of Turkey from the Southwest (Anatolian area) to the Northeast (Artvin Province). It was collected by both sweep netting and Malaise trapping; in the latter case it is mainly stored in 70% alcohol. The collectors of the material (not mentioned in the text) were as follows:

2003 – Hasan Koç, Okan Özgül and Ali Karaman;

2004 – Hasan Koç, Alper Tonguç, Okan Özgül and Ali Karaman;

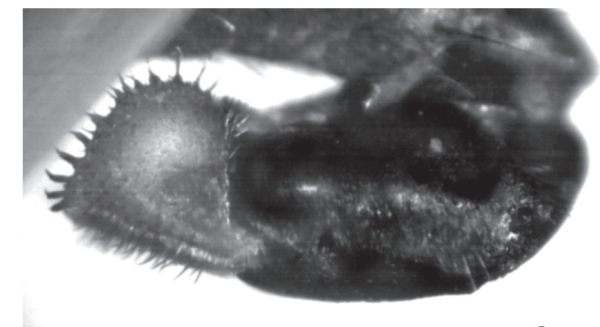
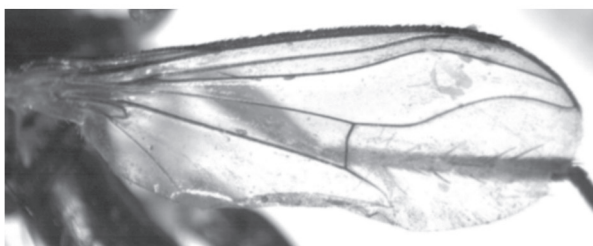
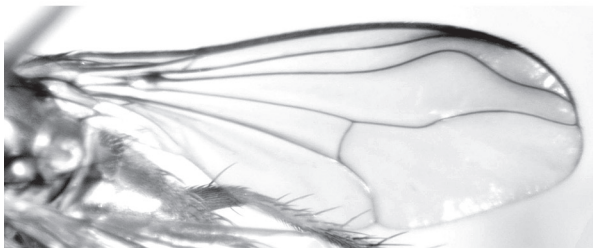
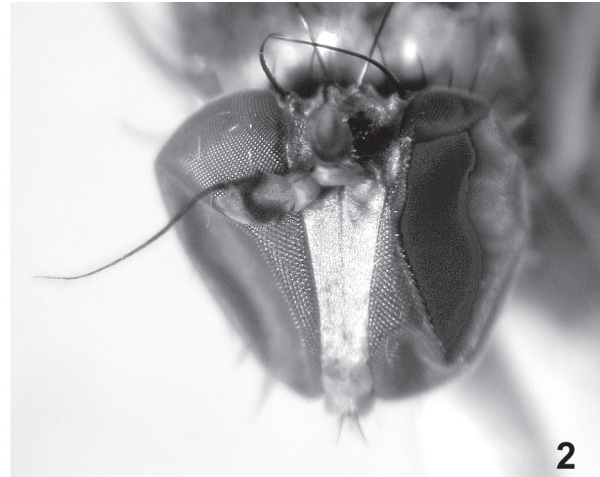
2005–2006 – Hasan Civelek, Hasan Koç, Alper Tonguç, Okan Özgül and Oktay Dursun;

2007, March – Nikita Vihrev;

2007, April–August – Hasan Civelek, Alper Tonguç, Okan Özgül and Oktay Dursun;

2007, September – Igor Grichanov, Alper Tonguç, Okan Özgül and Oktay Dursun;

Distribution part of the list includes countries of the East Mediterranean Region and notes on the general distribution for each species after Negrobov [1991] and Yang et al. [2006] mainly. The material collected is deposited in the Muğla University; material collected by Igor Grichanov is kept in both Muğla University and All-Russian Institute of Plant Protection (VIZR); material collected by Nikita Vihrev is deposited in VIZR. Photos are made by I.Ya. Grichanov.



Figs. 1–6. *Hercostomus phoebus* Parent, 1927 and *H. apollo* (Loew, 1869).

1–4 – *Hercostomus phoebus*; 5–6 – *H. apollo*. 1 – habitus; 2 – head; 3, 5 – wing; 4, 6 – hypopygium.

Рис. 1–6. *Hercostomus phoebus* Parent, 1927 и *H. apollo* (Loew, 1869.)

1–4 – *Hercostomus phoebus*; 5–6 – *H. apollo*. 1 – внешний вид; 2 – голова; 3, 5 – крыло; 4, 6 – гипопигий.

## Results

### *Hercostomus phoebus* Parent, 1927

**Material.** Turkey: 10♂, 10♀, Burdur, Yeşilova, Salda Gölü [Lake], 37°31'N / 29°39'E, 1180 m, 13.06.2003; Burdur, Çavdır, Bayır Köyü [Village], 37°05'N / 29°43'E, 1071 m, 28.06.2003; Burdur, Merkez [Centrum], Gelincik Göleti [Pond], 37°45'N / 30°24'E, 1160 m, 22.07.2003; Burdur, Yeşilova, Baraj Gölü [Barrage Lake], 37°25'N / 29°49'E, 1207 m, 25.07.2003; Muğla, Fethiye, Seki Yaylası [Plateau], Boğalar Çayı [Stream], 36°50'N / 29°39'E, 1176 m, 24.07.2003; 1♂, Burdur, Yeşilova, Baraj Gölü [Barrage Lake], 37°25'N / 29°49'E, 1207 m, 25.07.2003; 3♂, 1♀, Burdur, Yeşilova, Yarıklı Köyü [Village], 37°34'N / 29°54'E, 1005 m, 17.09.2004; 4♂, 1♀, Burdur, Yeşilova, Karaçal Köyü [Village], Karaçal Çayı [Stream], 37°33'N / 29°56'E, 930 m, 17.09.2004; 2♀, Burdur, Çavdır, Bayır Köyü [Village], 37°05'N / 29°43'E, 1071 m, 28.06.2003; 1♂, Antalya, Manavgat, Titreyen Göl [Lake], 36°45'N / 31°27'E, 10 m, 5.07.2004.

**Description.** Male (Fig. 1–4): General coloration of body metallic greenish. Frons metallic green, weakly pollinose; face whitish-yellowish, grey, narrow, grey pollinose. One long and strong vertical at the top of head, one short postvertical, a pair of short hairs in addition to pair of long and strong ocellar setae present. Postocular setae white; 4–5 upper setae black. Eyes with microscobic hairs; face glabrous; clypeus not reaching lower margin of eyes. Antenna as long as height of head; scape and pedicel yellow, postpedicel entirely black; pedicel short and high, internally convex anteriorly, with short distal setulae; postpedicel asymmetric, convex ventrally, acute apicodorsally, as long as high, with microscopic hairs; arista middorsal, black, with short hairs. Length ratio of scape to pedicel to postpedicel to arista, 3 : 2 : 4 : 17. Palpus and proboscis moderately small, yellow, with short hairs; palpus with 1 black seta.

Thorax dark green; mesonotum metallic bluish-green, pleura bronze, grey pollinose. Six strong dorsocentral setae with several hairs in front of the 1st pair; 2 rows of acrostichals; 2 strong notopleural, 1 strong and 1 short humeral setae present. Proepisternum with 1 strong black seta above fore coxa. Scutellum with 2 strong setae and 2 lateral hairs.

Legs mostly yellow; mid coxa with large black external spot; apical segments of mid and hind tarsi darkened. Fore coxa with white hairs anteriorly and with several black setae in apical half; mid coxa with 2 strong external setae in addition to anterior hairs; hind coxa with 1 strong external seta. Legs including tarsi simple. Femora without long hairs. Fore tibia with 2 fine posterior, 4–5 posterodorsal, 5–7 anterodorsal, 1–2 short apical, 1 strong and long apicoventral setae. Length ratio of tibia to tarsus (segments from first to fifth), 36 : 18 : 9 : 5 : 4 : 4. Mid femur with 1 anterior and 1 posteroventral subapical setae. Mid tibia with 5–6 anterodorsal, 2 posterodorsal, 1 strong ventral at 3 / 4, and 4–5 apical setae. Mid basitarsus with several ventral setae. Length ratio of mid tibia to tarsus (segments from first to fifth), 50 : 26 : 13 : 9 : 5 : 5. Hind femur with one subapical anterior seta. Hind tibia with 5 anterodorsal, 6–7 posterodorsal, 4–5 smaller ventral, 3 apical setae. Hind basitarsus with 1 very short basoventral seta. Length ratio of tibia to tarsus (segments from first to fifth), 62 : 18 : 19 : 12 : 7 : 7.

Wing mostly hyaline, widely brownish in distal 1 / 3 anteriorly. Costa simple.  $R_1$  reaching to first fourth of wing length.  $R_{2+3}$  strongly convex anteriorly in distal third. Ratio of part of costa between  $R_{2+3}$  and  $R_{4+5}$  to this between  $R_{4+5}$  and  $M_{1+2}$ , 20 : 6.  $M_{1+2}$  weakly convex anteriorly in distal part. Crossvein m-cu straight, oblique, positioned behind midlength of wing. Ratio of m-cu to distal part of  $CuA_1$ , 11 : 18. Posterior wing margin evenly convex, slightly excised at  $CuA_1$ . Anal vein distinct, almost reaching to wing margin; anal lobe pronounced; anal angle right. Lower calypter yellow, with yellow setae. Halteres yellow.

Abdomen entirely metallic bronze-green, with black hairs and marginal setae. Hypopygium moderate, black-green, shortly pedunculate. Epandrium elongate triangular. Hypandrium short and narrow. Aedeagus concealed. Epandrial lobe yellow, fused with epandrium, large, projected apicoventrally, with 2 epandrial setae

ventrally. Surstylus bilobate; small. Cercus simple, rhomboid, with short dorsal hairs and strong simple distal and apical setae, dentate distally, yellow, with narrowly black margin.

Length (mm): body without antennae 6.9, antenna 1.5, wing-length 7.8, wing-width 3.1, hypopygium 2.3.

**Distribution.** Turkey, Armenia.

**Diagnosis.** The male keys to *H. longiventris* (Loew, 1857) and *H. cyprius* Parent, 1937 [Stackelberg, 1933], differing in vein m-cu positioned behind wing midlength, mainly dark mid coxa, pinched posteriorly hypopygium and epandrium morphology. The species was described by a female that keys to *H. blepharopus* Loew, 1871 and *H. longiventris* (Loew, 1857), differing in entirely reddish-yellow scape and pedicel. However, in general habitus the species is close to *H. apollo* (Loew, 1869) that has entirely black antenna, slightly differing wing venation and male cercus shape (Fig. 5–6).

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

**Material.** Turkey: 2♂, Antalya, Side, Titreyen Göl [Lake], 25.03.2007; Antalya, Manavgat Şelalesi Mevkii [Waterfall place], 27.03.2007.

**Distribution.** Turkey, Abkhazia, Armenia, Azerbaijan, Bulgaria, Greece incl. Crete, Romania, Southern Russia, Ukraine, all Europe, Algeria, Canary Is., Madeira, Morocco.

### *Campsicnemus simplicissimus* Strobl, 1906

**Material.** 1♂, Turkey, Antalya, Side, Titreyen Göl [Lake], 25.03.2007.

**Distribution.** Turkey, Abkhazia, Bulgaria, Greece: North Aegean; Israel, Southern Russia, France, Hungary, Italy, Spain, Switzerland.

### *Campsicnemus umbripennis* Loew, 1856

**Material.** Turkey: 1♂, 1♀, Isparta, Merkez, Sav Köyü [Village], Kaynak Mevkii [Place], 37°45'N / 30°40'E, 1215 m, 19.09.2004; 2♀; Muğla, Köyceğiz, Ağla Köyü [Village], Gökçeova Gölü [Lake], 37°03'781"N / 28°48'524"E, 1755 m, 2.09.2007.

**Distribution.** Turkey, Abkhazia, Armenia, Bulgaria, Greece: North Aegean; Iraq, Israel, Romania, Southern Russia, Europe except North, Afghanistan, Tajikistan, Turkmenistan.

### *Chrysotus cilipes* Meigen, 1824

**Material.** Turkey: 2♂, 1♀, Rize, İkizdere-Kalakandere yolu [Road], Aksu Mahallesi [Street], 40°55'368"N / 40°25'057"E, 82 m, 21.08.2007; 2♀, Artvin, Hopa, Kemalpaşa Mevkii [Place], 41°28'553"N / 41°31'669"E, 34 m, 23.08.2007.

**Distribution.** Turkey, Abkhazia, Armenia, Azerbaijan, Romania, Southern Russia. Transpalearctic species.

### *Chrysotus obscuripes* Zetterstedt, 1838

**Material.** Turkey: 2♂, 3♀, Antalya, Side, Titreyen Göl [Lake], 25, 27.03.2007; Antalya, Manavgat Şelalesi [Waterfall], Çam ormanı [Pine forest], 27.03.2007.

**Distribution.** Turkey, Romania, Southern Russia, Ukraine, Europe, Kyrgyzstan, Yakutia, Amur Region, China.

### *Chrysotus suavis* Loew, 1857

**Material.** Turkey: 2♂, 18♀, Artvin, Borçka, Camili Yolu [Road], 41°25'216"N / 41°50'853"E, 1788 m, 23.08.2007.

**Distribution.** Turkey, Armenia, Bulgaria, Egypt, Georgia, Greece: North Aegean; Iraq, Israel, Romania, Southern Russia, Ukraine. Transpalearctic species.

*Diaphorus varifrons* Becker, 1918

**Material.** Turkey: 1♂, Muğla, Köyceğiz, Ağla Köyü [Village], 37°01'285"N / 28°44'458"E, 635 m, 2.09.2007.

**Distribution.** Turkey, Tunisia.

*Dolichopus cilifemoratus* Macquart, 1827

**Material.** Turkey: 1♀, Rize, İkizdere-Kalakandere yolu [Road], Aksu Mahallesi [Street], 40°55'368"N / 40°25'057"E, 82 m, 21.08.2007.

**Distribution.** Turkey, Armenia, Georgia, Romania, Southern Russia, Ukraine, Europe, Northern Kazakhstan, Eastern Russia: Altai, Primorskiy Krai, Sakhalin.

*Dolichopus excisus* Loew, 1859

**Material.** Turkey: 7♂, 1♀; Burdur, Yeşilova, Kocapınar Köyü [Village], 37°32'N / 29°56'E, 930 m, 14.05.2004; 1♀, Antalya, Side, Titreyen Göl [Lake], 30.03.2007.

**Distribution.** Turkey, Abkhazia, Armenia, Bulgaria, Israel, Romania, Southern Russia, Ukraine, Europe except North, Turkmenistan, Tajikistan.

*Dolichopus griseipennis* Stannius, 1831

**Material.** Turkey: 1♂, Muğla, Merkez [Centrum], Yerkesik Kasabası [Town], Damla Deresi [Stream], 37°06'N / 28°15'E, 618 m, 20.08.2003; 3♀, Burdur, Yeşilova, Baraj Gölü [Barrage Lake], 37°25'N / 29°49'E, 1207 m, 25.07.2003; 1♀, Muğla, Fethiye, Seki Yaylası [Valley], Boğalar Çayı [Stream], 36°50'N / 29°39'E, 1176 m, 24.07.2003.

**Distribution.** Turkey, ?Armenia, Bulgaria, Cyprus, Georgia, Greece incl. Crete, Israel, Romania, Southern Russia, Europe, Algeria, Morocco, Tunisia, Northern Kazakhstan, Middle Asia.

*Dolichopus latilimbatus* Macquart, 1827

**Material.** Turkey: 1♂, Kocaeli-İzmit, Bayraktar Köyü [Village], 40°46'640"N / 30°04'601"E, 26 m, 19.05.2007.

**Distribution.** Turkey, Abkhazia, Azerbaijan, Bulgaria, Romania, Southern Russia, Ukraine, Europe, Northern Kazakhstan, Mongolia, Eastern Russia: Ural; Uzbekistan.

*Dolichopus sabinus* Haliday, 1838

**Material.** Turkey: 2♀, Antalya, Side, Titreyen Göl [Lake], 27, 30.03.2007.

**Distribution.** Turkey, Abkhazia, Bulgaria, Greece incl. Crete, Israel, Romania, Southern Russia, Ukraine, Europe, Tanzania.

*Dolichopus signifer* Haliday, 1832

**Material.** Turkey: 6♂, 1♀, Burdur, Yeşilova, Baraj Gölü [Barrage Lake], 37°25'N / 29°49'E, 1207 m, 25.07.2003.

**Distribution.** Turkey, Armenia, Bulgaria, Georgia, Greece incl. North Aegean, Romania, Southern Russia, Ukraine, Europe, Afghanistan, Azores, Morocco, Tajikistan, Turkmenistan, Uzbekistan.

*Dolichopus strigipes* Verrall, 1875

**Material.** Turkey: 6♂, 14♀ Artvin, Borçka, Camili Yolu [Road], 41°25'216"N / 41°50'853"E, 1788 m, 23.08.2007.

**Distribution.** Turkey, Bulgaria, Greece: North Aegean; Romania, Ukraine, West and South of Europe.

*Dolichopus thalhammeri* Knézy, 1929

=*Dolichopus balius* Meuffels, 1982, **syn. n.**

**Material.** Turkey: 1♂, Antalya, Side, Titreyen Göl [Lake], 25.03.2007.

**Distribution.** Turkey, Bulgaria, France, Hungary.

**Remark.** *D. thalhammeri* is an apparently overlooked species that has been included in none key or catalog until recently. Meuffels [1982] probably did not know the paper of Knézy [1929]. Moreover, *D. thalhammeri* itself is a possible synonym to *D. nimbatus* Parent, 1927, known by female from Greece.

*Hercostomus caucasicus* Stackelberg, 1933

**Material.** Turkey: 1♂, 1♀, Artvin, Borçka, Camili Yolu [Road], 41°25'216"N / 41°50'853"E, 1788 m, 23.08.2007.

**Distribution.** Turkey, Abkhazia, Armenia, Georgia, Southern Russia, ?Kyrgyzstan.

*Hercostomus chetifer* (Walker, 1849)

**Material.** Turkey: 2♂, Muğla, Köyceğiz, Toparlar Şelalesi [Waterfall], 36°59'725"N / 28°38'084"E, 44 m, 2.09.2007.

**Distribution.** Turkey, Greece incl. Crete, Georgia, Israel, Romania, Southern Russia, Ukraine, Europe, Algeria, Nearctic and Oriental Regions.

*Hercostomus gracilis* (Stannius, 1831)

**Material.** Turkey: 11♂, 4♀, Burdur, Çavdır, Bayır Köyü [Village], 37°05'N / 29°43'E, 1071 m, 28.06.2003; 1♂, Burdur, Merkez [Centrum], Gelincik Göleti [Pond], 37°45'N / 30°24'E, 1160 m, 22.07.2003; 1♀, Aydın, Bozdoğan, Amasya Köyü [Village], 37°36'N / 28°29'E, 123 m, 23.06.2003; 1♂, Burdur, Yeşilova, Sasaz Köyü [Village], 37°34'N / 29°54'E, 1060 m, 13.06.2003; 1♀, Aydın, Buharkent, Feslek Köyü [Village], 38°00'N / 28°40'E, 573 m, 23.08.2003; 2♂, Burdur, Yeşilova, Baraj Gölü [Barrage Lake], 37°25'N / 29°49'E, 1207 m, 25.07.2003.

**Distribution.** Turkey, Armenia, Bulgaria, Greece, Ukraine, Europe, Tajikistan, Turkmenistan.

*Hercostomus longiventris* (Loew, 1857)

**Material.** Turkey: 1♂ Muğla, Fethiye, Yakapark Köyü [Village], Tylos Antik Kenti [Town], 36°32'N / 29°28'E, 150 m, 30.09.2003; 1♂, 1♀, Artvin, Borçka, Camili Yolu [Road], 41°25'216"N / 41°50'853"E, 1788 m, 23.08.2007.

**Distribution.** Turkey, Georgia, Greece, Israel, Romania, Southern Russia, Europe, Morocco, Tajikistan.

*Hercostomus nanus* (Macquart, 1827)

**Material.** Turkey: 1♂, Muğla, Dalaman, Kapıkargın Köyü [Village], Kapıkargın Gölü [Lake], 36°41'N / 28°50'E, 20 m, 3.05.2003; 2♂, 2♀, Muğla, Ortaca, Tepearası Köyü [Village], 36°55'N / 28°44'E, 10 m, 30.04.2004.

**Distribution.** Turkey, Moldova, Romania, Ukraine, Europe.

*Hercostomus varicoloris* Becker, 1917

**Material.** Turkey: 4♂, 2♀, Artvin, Merkez, Hatilla Yaylası [Valley], 41°07'129"N / 41°38'216"E, 1172 m, 24.08.2007.

**Distribution.** Turkey, Abkhazia, Armenia, Georgia, Southern Russia.

*Hydrophorus balticus* (Meigen, 1824)

**Material.** Turkey: 6♂ 17♀, Denizli, Beyağaç, Kartal Gölü [Lake], 37°05'N / 28°50'E, 1909 m, 16.08.2003; 1♂, Aydın, Kuyucak, Yeşildere Köyü [Village], 38°03'N / 28°34'E, 926 m, 23.08.2003; 1♀, Muğla, Merkez [Centrum], Yerkesik Kasabası [Town], Kiran Köyü [Village], 37°04'N / 28°12'E, 925 m, 20.08.2003; 1♂, Isparta, Aksu, Dedegöl Dağları [Mountains], Sorgun Göleti [Pond], 37°50'N / 31°06'E, 1350 m, 15.05.2004; 1♀, Isparta, Merkez, Sav Köyü [Village], Kaynak Mevkii [Spring Place], 37°45'N / 30°40'E, 1215 m, 19.09.2004; 2♂, Rize, İkizdere-Kalakandere yolu [Road], Aksu Mahallesi [Road], 40°55'368"N / 40°25'057"E, 82 m, 21.08.2007; 1♂, 1♀ Isparta, Merkez [Centrum], Yakiören Köyü [Village], Milas Mesireliği [Picnic Area], 37°44'N / 30°29'E, 1353 m, 17.09.2004; 7♂, ♀, Muğla, Köyceğiz, Ağla Köyü [Village], Gökçeova Gölü [Lake], 37°03'781"N / 28°48'524"E, 1755 m, 2.09.2007.

**Distribution.** Turkey, Bulgaria, Cyprus, Georgia, Greece, Israel, Romania, Southern Russia, Ukraine. Transpalearctic species.

*Hydrophorus praecox* (Lehmann, 1822)

**Material.** Turkey: 1♂, 1♀, Antalya, Side, Titreyen Göl [Lake], 25.03.2007.

**Distribution.** Turkey, Abkhazia, Bulgaria, Egypt, Georgia, Greece: Crete, North Aegean; Iraq, Israel, Romania, Southern Russia, Ukraine, Palaearctic, Afrotropical, Oriental Regions, Australia, Oceania, New Zealand.

*Liancalus virens* (Scopoli, 1763)

**Material.** Turkey: 1♂, Muğla, Merkez [Centrum], Yerkesik Kasabası [Town], Damla Deresi [Stream], 37°06'N / 28°15'E, 618 m, 20.08.2003; 1♂, Muğla, Fethiye-Korkuteli Yolu [Road], 10th km, 36°42'N / 29°45'E, 960 m, 28.06.2003; 1♀, Muğla, Fethiye, Yakapark Köyü [Village], 36°33'N / 29°26'E, 268 m, 31.07.2003; 2♂, 1♂, Muğla, Köyceğiz, Ağla Köyü [Village], Gökçeova Gölü [Lake], 37°03'781"N / 28°48'524"E, 1755 m, 2.09.2007.

**Distribution.** Turkey, Abkhazia, Bulgaria, Cyprus, Georgia, Greece incl. Crete, Israel, Romania, Southern Russia, Ukraine, Europe, Algeria, Madeira, Morocco, Tunisia, Southern Kazakhstan, Tajikistan, Kyrgyzstan.

*Medetera flavipes* Meigen, 1824

**Material.** Turkey: 3♀, Aydın, Didim, Bafa Gölü [Lake], 37°28'N / 27°22'E, 30 m, 24.05.2003; 1♂, Habib Neccal, 12–13.04.2007, 2♂; Muğla, Ula, Gökova, Çınar Mevkii [Place], 37°02'N / 28°17'E, 0–10 m, 5.09.2007; 1♀ Muğla env., 3.09.2007 (Grichanov).

**Distribution.** Turkey, Egypt, Greece: Crete, North Aegean, Rhodes; Israel, Southern Russia, Syria, Ukraine, Southern Europe, Algeria, Canary Is.

*Medetera muralis* Meigen, 1824

**Material.** Turkey: 1♂, Denizli, Beyağaç, Koçarlı-Beyağaç yolu [Road], 3rd km, 37°22'N / 28°52'E, 1240 m, 9.05.2003.

**Distribution.** Turkey, Abkhazia, Israel, Romania, Southern Russia, all Europe.

*Medetera setiventris* Thunberg, 1955

**Material.** Turkey: 3♂, 4♀, Antalya, Side, sand dunes, 25, 31.03.2007.

**Distribution.** Turkey, Romania, Northern Europe; Russia: Perm, Nizhni Novgorod and Novosibirsk Regions.

*Medetera truncorum* Meigen, 1824

**Material.** Turkey: 19♂, ♀; Isparta, Aksu, Zindan Mağarası [Cave], 37°48'N / 31°05'E, 916 m, 18.09.2004; 1♂, Muğla, Köyceğiz, Ağla Köyü [Village], 37°01'285"N / 28°44'458"E, 635 m, 2.09.2007.

**Distribution.** Turkey, Egypt, Greece, Israel, Southern Russia, Ukraine, Europe, Algeria, Azores; Nearctic: British Columbia, Wayoming, Oregon.

*Ortochile nigrocoerulea* Latreille, 1809

=*Ortochile unicolor* Loew, 1850

**Material.** Turkey: 2♀, Aydın, Kuşadası, Şarлак Köyü [Village], 37°45'N / 27°20'E, 200 m, 13.04.2004.

**Distribution.** Turkey, Greece incl. North Aegean, Israel, Algeria, Austria, Balearic Is., Croatia, France, Great Britain, Hungary, Italy, ?Macedonia, Poland, Spain; Sweden, Tunisia, "Yugoslavia" [Negrobov, 1991].

*Pocilobothrus regalis* (Meigen, 1824)

**Material.** Turkey: 6♂, 4♀, Burdur, Yeşilova, Sasaz Köyü [Village], 37°34'N / 29°54'E, 1060 m, 13.06.2003; 10♂, 3♀, Burdur, Yeşilova, Yarışlı Gölü [Lake], 37°35'N / 29°58'E, 995 m, 13.06.2003; 2♀, Denizli, Çardak, Yukarıdağdere Köyü [Village], Saklıgöl Mevkii [Place], 37°46'N / 29°23'E, 955 m, 22.07.2003; 1♀, Antalya, Elmali, Söğütülü Köyü [Village], 36°54'N / 30°02'E, 1247 m, 28.06.2003; 2♂, 1♀, Denizli, Tavas, Kızılca Kasabası [Town], 37°29'N / 29°10'E, 1100 m, 13.06.2003; 4♂, 12♀, Burdur, Yeşilova, Baraj Gölü [Barrage Lake], 37°25'N / 29°49'E, 1207 m, 25.07.2003; 1♂, 2♀, Muğla, Fethiye, Seki Yaylası [Valley], Boğalar Çayı [Stream], 36°50'N / 29°39'E, 1176 m, 24.07.2003; 1♂, Muğla, Fethiye, Ceylan Köyü [Village], Karabel Yaylası [Valley], 36°48'N / 29°31'E, 110 m, 28.06.2003; 13♂, 6♀, Burdur, Merkez [Centrum], Burdur Gölü [Lake], 37°38'N / 30°07'E, 890 m, 13.06.2003; 1♂, Muğla, Fethiye, Çatlılar Köyü [Village], 36°53'N / 29°40'E, 1240 m, 28.06.2003; 1♂, Burdur, Yeşilova, Salda Kasabası [Town], Salda Geçiti [Mountain pass], 37°30'N / 29°37'E, 1280 m, 13.06.2003; 1♂ Burdur, Merkez [Centrum], Gelincik Göleti [Pond], 37°45'N / 30°24'E, 1160 m, 22.07.2003; 1♂, Burdur, Çavdır, Bayır Köyü [Village], 37°05'N / 29°43'E, 1071 m, 28.06.2003; 1♀, Muğla, Fethiye, Korkuteli Yolu [Road] 10.Km, 36°42'N / 29°45'E, 960 m, 28.06.2003; 3♂, 4♀, Burdur, Yeşilova, Salda Geçiti [Mountain pass], 37°30'N / 29°37'E, 1280 m, 3.07.2004; 2♂, 3♀, Antalya, Korkuteli, Söğüt Kasabası [Town], 37°00'N / 29°54'E, 1500 m, 7.07.2004; 3♂ 6♀, Isparta, Yalvaç, Yukarıeği Köyü [Village], 38°19'N / 31°04'E, 1125 m, 18.06.2005.

**Distribution.** Turkey, Bulgaria, Georgia, Greece incl. North Aegean Is., Romania, Southern Russia, Ukraine, Central and Southern Europe, Iran, Uzbekistan.

*Rhaphium caliginosum* Meigen, 1824

=*Rhaphium zetterstedti* (Parent, 1925)

**Material.** Turkey: 1♂, Burdur, Yeşilova, Salda Kasabası [Town], Salda Geçiti [Mountain pass], 37°30'N / 29°37'E, 1280 m, 13.06.2003.

**Distribution.** Turkey, Armenia, Bulgaria, Greece, Israel, Romania, Southern Russia, Syria, Ukraine, Europe,

Eastern Russia: Mid-Urals, Baikal, Primorskiy Krai; Algeria, Morocco.

*Rhaphium micans* (Meigen, 1824)

**Material.** Turkey: 1♂, Rize, İkizdere-Kalakandere yolu [Road], Aksu Mahallesi [Street], 40°55'368"N / 40°25'057"E, 82 m, 21.08.2007.

**Distribution.** Turkey, Abkhazia, Bulgaria, Romania, Southern Russia, Europe, China, Tadjikistan, Eastern Russia: Primorskiy Krai.

*Sciapus aberrans* Becker, 1918

**Material.** Turkey: 1♂, Adana, Yumurtalık, 12–17.04.2007.

**Distribution.** Turkey, Lebanon, Italy, Germany.

*Sciapus flavicinctus* (Loew, 1857)

**Material.** Turkey: 3♂, Adana, Yumurtalık, 12–17.04.2007.

**Distribution.** Azerbaijan, Bulgaria, Greece incl. Crete, Romania, Southern Russia, Turkey, ?Israel, France, Hungary, Germany, Italy, Slovakia.

*Sciapus holoxanthos* Parent, 1926

**Material.** Turkey: 1♀, Muğla, Köyceğiz, Toparlar Şelalesi [Waterfall], 36°59'725"N / 28°38'084"E, 44 m, 2.09.2007.

**Distribution.** Turkey, France.

*Sybistroma impar* (Rondani, 1843)

**Material.** Turkey: 2♂, 1♀, Antalya, Serik, Köprü Çayı [Stream], 36°54'N / 31°11'E, 15 m, 5.07.2004.

**Distribution.** Turkey, Bulgaria, Greece, Israel, Romania, Hungary, Italy.

*Sympycnus pulicarius* (Fallén, 1823)

=*Sympycnus annulipes* (Meigen, 1824)

**Material.** Turkey: 4♂, Aydın, Çine, Kavşit Köyü [Village], Madran Deresi [Stream], 37°38'N / 28°08'E, 850 m, 3.10.2004; 6♂, 1♀, Muğla, Köyceğiz, Ağla Köyü [Village], Gökçeova Gölü [Lake], 37°03'781"N / 28°48'524"E, 1755 m, 2.09.2007.

**Distribution.** Turkey, Bulgaria, Greece incl. North Aegean, Romania, Southern Russia, Ukraine, all Europe, Eastern Russia: Altai; Nearctic: California.

*Syntormon aulicus* (Meigen, 1824)

**Material.** Turkey: 1♂, Burdur, Yeşilova, Yarışlı Köyü [Village], 37°34'N / 29°54'E, 1005 m, 3.07.2004.

**Distribution.** Turkey, Bulgaria, Greece, Europe, Algeria, Morocco, Tunisia, Middle Asia.

*Syntormon denticulatus* (Zetterstedt, 1843)

=*Syntormon pumilus* Parent, 1925

**Material.** Turkey: 2♀, Muğla, Köyceğiz, Ağla Köyü [Village], Gökçeova Gölü [Lake], 37°03'781"N / 28°48'524"E, 1755 m, 2.09.2007; 1♀, Muğla, Köyceğiz, Yuvarlak Çay [Stream], 36°54'850"N / 28°47'890"E, 85 m, 2.09.2007.

**Distribution.** Turkey, Abkhazia, Armenia, Bulgaria,

Israel, Romania, Southern Russia, Ukraine, Europe, Middle Asia, Northern Africa, Afghanistan.

*Syntormon pallipes* (Fabricius, 1794)

**Material.** Turkey: 1♂, Isparta, Eğirdir, Kovada Gölü [Lake], 37°38'N / 30°51'E, 932 m, 14.06.2003; 1♀, Denizli, Çameli, Belevi Köyü [Village], 37°06'N / 29°22'E, 1482 m, 10.05.2003; 1♀, Denizli, Acıpayam, Eskiköy, 37°12'N / 29°20'E, 1137 m, 10.05.2003; 3♀, Burdur, Yeşilova, Kocapınar Köyü [Village], 37°32'N / 29°56'E, 930 m, 14.05.2004; 2♀, Denizli, Tavas, Kızılca Kasabası [Town], 37°29'N / 29°10'E, 1100 m, 13.06.2003; 1♀, Muğla, Merkez, Yaraş Köyü [Village], 37°10'N / 28°28'E, 710 m, 8.04.2005; 3♀, Burdur, Yeşilova, Karaçal Köyü [Village], Karaçal Çayı [Stream], 37°33'N / 29°56'E, 930 m, 17.09.2004; 4♂, Isparta, Merkez [Centrum], Yakiören Köyü [Village], Milas Mesireliği [Picnic Area], 37°44'N / 30°29'E, 1353 m, 17.09.2004; 1♂, 2♀, Denizli, Merkez [Centrum], Honazdağı Milli Parkı [Natural Park], 37°40'N / 29°15'E, 1600 m, 9.06.2005; 1♂, 1♀, Denizli, Çameli, Karabayır Köyü [Village], 36°56'N / 29°08'E, 1000 m, 31.10.2004; 4♂, 4♀, Burdur, Yeşilova, Baraj Gölü [Barrage Lake], 37°25'N / 29°49'E, 1207 m, 25.07.2003; 4♂, 2♀, Turkey, Antalya, Side, Titreyen Göl [Lake], 25, 27.03.2007; Turkey, Antalya, Şelalesi Mevkii [Waterfall Place], 27, 29.03.2007; 2♂, Muğla, Köyceğiz, Ağla Köyü [Village], Gökçeova Gölü [Lake], 37°03'781"N / 28°48'524"E, 1755 m, 2.09.2007.

**Distribution.** Turkey, Abkhazia, Bulgaria, Egypt, Georgia, Greece incl. Crete, Iraq, Israel, Romania, Southern Russia, Ukraine, all Europe, Anterior, Middle and Central Asia, North and Tropical Africa, Oriental China, St. Helena (?introduced).

*Tachytrechus beckeri* Lichtwardt, 1917

=*Tachytrechus gussakovskii* Stackelberg, 1941, **syn. n.**

**Material.** Turkey: 1♂, Muğla, Köyceğiz, Toparlar Şelalesi [Waterfall], 36°59'725"N / 28°38'084"E, 44 m, 2.09.2007.

**Distribution.** Turkey, France, Italy, Tajikistan, China.

**Remark.** Short description of Mediterranean *T. beckeri* by Lichtwardt [1917] has no difference from the detailed description of *T. gussakovskii* by Stackelberg [1941], including the unique for Palearctic *Tachytrechus* species combination of male secondary sexual characters. A male collected from Turkey is identical to description and figures by Stackelberg for the material from Tajikistan. Therefore, we consider the both names to be synonymic.

*Tachytrechus kowarzi* Mik, 1864

**Material.** Turkey: 3♀, Burdur, Yeşilova, Salda Gölü [Lake], 37°31'N / 29°39'E, 1180 m, 13.06.2003.

**Distribution.** Turkey, Armenia, Austria, Czech and Slovak Republics, Hungary, Italy.

*Tachytrechus notatus* (Stannius, 1831)

**Material.** Turkey: 1♂, 1♀, Aydın, Yenipazar, Katrançı Köyü [Village], 37°42'N / 28°09'E, 710 m, 3.10.2004; 10♂, 1♀, Muğla, Köyceğiz, Ağla Köyü [Village], Gökçeova Gölü [Lake], 37°03'781"N / 28°48'524"E, 1755 m, 2.09.2007; 1♀, Muğla, Ula, Gökova, Çınar Mevkii [Place], 37°02'N / 28°17'E, 0–10 m, 5.09.2007.

**Distribution.** Turkey, Abkhazia, Armenia, Bulgaria, Greece incl. Crete, Israel, Romania, Southern Russia, Syria, Ukraine, Europe, Canary Is., Turkmenistan.

*Tachytrechus ripicola* Loew, 1857

**Material.** Turkey: 1♂, Antalya, Manavgat Şelalesi [Waterfall], Çam ormanı [Pine Forest], 27.03.2007.

**Distribution.** Turkey, Armenia, Bulgaria, Greece, Romania, Southern Russia, Syria; Europe, Orenburg

Region, Northern Kazakhstan.

*Teuchophorus monacanthus* Loew, 1859

**Material.** Turkey: 1♂, Artvin, Hopa, Kemalpaşa Mevkii [Place], 41°28'553"N / 41°31'669"E, 34 m, 23.08.2007.

**Distribution.** Turkey, Bulgaria, Georgia, Greece incl. Crete, Iraq, Israel, Romania, Southern Russia, all Europe, Middle Asia.

*Thinophilus versutus* Haliday, 1851

**Material.** Turkey: 1♂, Antalya, Manavgat Şelalesi Mevkii [Waterfall Place], 29.03.2007.

**Distribution.** Turkey, Bulgaria, Greece incl. Crete, Romania, Ukraine, Europe, Algeria, Morocco.

*Thrypticus bellus* Loew, 1869

**Material.** Turkey: 1♂; 3♀; Muğla, Köyceğiz, Ağla Köyü [Village], Gökçeova Gölü [Lake], 37°03'781"N / 28°48'524"E, 1755 m, 2.09.2007.

**Distribution.** Turkey, Abkhazia, Armenia, Bulgaria, Egypt, Greece, Israel, Romania, Southern Russia, Ukraine, all Europe, Anterior and Middle Asia, China, Eastern Russia: Western Siberia, Primorskiy Krai; North and Tropical Africa.

**Appendix.** Other species are known from Turkey, after Negrobov [1991]; Olejníček [2004]; Tonguç et al. [2007] and Grichanov [2007].

*Aphrosylus parcearmatus* Parent, 1925

**Distribution.** Turkey, Egypt: Sinai; Israel.

*Argyra leucocephala* (Meigen, 1824)

**Distribution.** Turkey, Azerbaijan, Bulgaria, Israel, Moldova, Romania, Southern Russia, Ukraine, "Transcaucasia", all Europe, Urals, Algeria.

*Chrysotus albibarbus* Loew, 1857

**Distribution.** Turkey, Egypt, Greece, Algeria, Spain: Canary Is.; France, Italy, Russia: Amur Region.

*Chrysotus pennatus* Lichtwardt, 1902

**Distribution.** Turkey, Armenia, Bulgaria, Greece, Romania, Southern Russia, ?Croatia ("Novi"), Hungary, Germany, Italy.

*Dolichopus cinctipes* Wahlberg, 1850

**Distribution.** Turkey, Finland, Norway, Sweden, Russia: Murmansk Region, Northern Ural, Buryatia, Amur and Magadan Regions, Khabarovsk Prov. and Primorskiy Krai.

**Remark.** Turkey has only melanistic form.

*Dolichopus diadema* Haliday, 1832

**Distribution.** Turkey, Bulgaria, Greece, Israel, Romania, Southern Russia, Ukraine, Europe, Kazakhstan, China.

*Dolichopus perversus* Loew, 1871

**Distribution.** Turkey, ?Abkhazia, Armenia, Israel, Tajikistan, Northern Kazakhstan.

*Dolichopus picipes* Meigen, 1824

**Distribution.** Turkey, Romania, Southern Russia, all Europe, Eastern Russia: Altai; Northern Kazakhstan.

*Dolichopus plumipes* (Scopoli, 1763)

**Distribution.** Turkey, Bulgaria, Georgia, Greece, Romania, Southern Russia, Ukraine, Palaearctic and Nearctic Regions, Mexico, Oriental China.

*Hercostomus apollo* (Loew, 1869)

**Distribution.** Turkey, Armenia, Greece, Iraq, Ukraine, Tunisia.

*Hercostomus costatus* (Loew, 1857)

**Distribution.** Turkey.

*Medetera diadema* (Linnaeus, 1767)

**Distribution.** Turkey, Abkhazia, Bulgaria, Egypt, Greece incl. Crete, North Aegean, Israel, Romania, Southern Russia, Ukraine, Europe, Northern Kazakhstan, Orenburg Region, Altai, Middle Asia, Tunisia, Algeria; Nearctic: Washington, California, New Hampshire, Massachusetts, Connecticut, New Jersey, Rhode Island.

*Medetera jacula* (Fallén, 1823)

**Distribution.** Turkey, Armenia, Azerbaijan, Georgia, Romania, Southern Russia, Ukraine, all Europe, Tunisia, Northern Kazakhstan, Eastern Russia: Altai, Buryatia, Urals.

*Rhaphium appendiculatum* Zetterstedt, 1849

=*Rhaphium macrocerum* (Parent, 1925)

**Distribution.** Turkey, Abkhazia, Bulgaria, Georgia, Greece, Romania, Southern Russia, Southern Ukraine, Europe, Ural, Middle Asia, Iran, Afghanistan, Algeria, Morocco, St. Helena (?introduced).

*Rhaphium fascipes* (Meigen, 1824)

**Distribution.** Turkey, Greece, Romania, Southern Russia, Ukraine, Europe, Morocco, Eastern Russia: Baikal, Krasnoyarsk Prov.; Nearctic: Alaska, Alberta, Kansas,



Michigan, Indiana, Ontario, Quebec, New York.

*Rhaphium laticorne* (Fallén, 1823)

**Distribution.** Turkey, Bulgaria, Romania, Southern Russia, Ukraine, all Europe, Middle Asia, Eastern Russia; Altai.

*Sciapus maurus* Parent, 1930

**Distribution.** Turkey, Bulgaria, ?Israel, Algeria, ?Belgium.

*Syntormon fuscipes* (von Roser, 1840)  
=*Syntormon spicatus* (Loew, 1857)

**Distribution.** Turkey, Bulgaria, Greece, Romania, Southern Russia, Ukraine, Europe, Burundi, Kenya.

*Syntormon metathesis* (Loew, 1850)

**Distribution.** Romania, Southern Russia: Krasnodar; Turkey, Europe, Ural.

*Tachytrechus insignis* (Stannius, 1831)

**Distribution.** Turkey, Bulgaria, Romania, Ukraine, Europe, Morocco.

*Thinophilus indigenus* Becker, 1902

**Distribution.** Turkey, Egypt, Israel, Algeria, Iran, Mongolia, Afrotropical and Oriental Regions.

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