

## Contributions to the Pediciidae (Diptera) fauna of Turkey with six new records

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**Abstract:** This study was carried out to contribute to the Pediciidae (Diptera) fauna in Afyonkarahisar, Balıkesir, Bilecik, Bursa, Çanakkale, Eskişehir, Kırklareli, Kütahya, Kocaeli, Sakarya, and Uşak provinces of Turkey between 2008 and 2014. It was reported that 12 pediciid species belonging to 4 genera have been recorded in Turkey. Six of these species were recorded for the first time for the Turkish Pediciidae fauna. These species are *Dicranota (Paradicranota) flammatra* Starý, 1981; *Dicranota (Paradicranota) fuscipennis* Lackschewitz, 1940; *Dicronata (Paradicronata) landrocki* Cizek, 1931; *Dicranota (Paradicranota) schistacea* Lackschewitz, 1940; *Dicronata (Paradicronata) subtilis* Loew, 1871; and *Tricyphona (Tricyphona) unicolor* (Schummel, 1829). All pediciid species known in Turkey, and their provinces of collection, are given in this paper.

**Key words:** Pediciidae, Diptera, new records, fauna, Turkey

The Pediciidae were part of the Limoniidae, which were traditionally included in the Tipulidae (Oosterbroek, 2006); however, they were separated from the Limoniidae by Starý (1992) due to several features in the adult stage.

Adult pediciids are ordinarily found in low deciduous vegetation near streams and lakes in forested areas. Many species are abundant and extensively preyed upon by birds, mammals, fish, and other vertebrates, as well as spiders and insects. Larvae are usually found in various aquatic and semiaquatic environments during most of their development. They feed on decaying plant material and fleshy fungi (*Ula* spp.). The Pediciinae are carnivorous in spring habitats; hence, they move to pupate on the margins of aquatic and semiaquatic environments or in dryer places (Reusch and Oosterbroek, 1997).

The Pediciidae currently contain 490 described species worldwide. Of these, 201 species are known in the Palearctic region, mainly in the East Palearctic (Oosterbroek, 2015).

So far, 11 pediciid species have been found in Turkey (Oosterbroek, 2015). The aim of this paper is to summarize our knowledge on the Turkish Pediciidae fauna and add new records.

Specimens were collected in aquatic and semiaquatic habitats in 2008–2011 in the provinces of Balıkesir, Bilecik, Bursa, Çanakkale, Kırklareli, Kocaeli, and Sakarya in the Marmara region; Afyonkarahisar, Kütahya, and Uşak in the Aegean region; and Eskişehir in the Central Anatolian region of Turkey (Figure). All adults were collected by the

authors with a sweep net (40 cm in diameter). Genitalia preparations were performed based on Dienske's (1987) approach and were preserved either in 70% mixture of alcohol and glycerin (3:1) solution or by pinning. The species were identified by following the works conducted by Dienske (1987), Savchenko (1989), Reusch and Oosterbroek (1997), and Podenas et al. (2006). Some problems in identifying the specimens were solved, and the identified taxa were checked by Jaroslav Starý. The material examined is presented along with localities, altitude, GPS coordinates, collection dates, and number and sex of each specimen examined. Specimens examined in the current study are deposited in the Zoological Laboratory of the Department of Biology, Muğla Sıtkı Koçman University, Muğla, Turkey (ZMMU).

A total of 280 specimens including 224 males were collected in Afyonkarahisar, Balıkesir, Bilecik, Bursa, Çanakkale, Eskişehir, Kırklareli, Kütahya, Kocaeli, Sakarya, and Uşak provinces of Turkey between 2008 and 2014. Twelve species were identified belonging to 4 genera of Pediciidae, 6 of which were recorded in Turkey for the first time. Additionally, all species were new records for the provinces where they were collected (Table).

### Subfamily Pediciinae

#### *Dicranota (Ludicia) lucidipennis* (Edwards, 1921)

Material examined: 1 ♂. Çanakkale: *Bayramiç*, Evciler, Kaz Mountains, Düden Alanı (39°41'N, 26°47'E), 1270 m, 19.08.2008.

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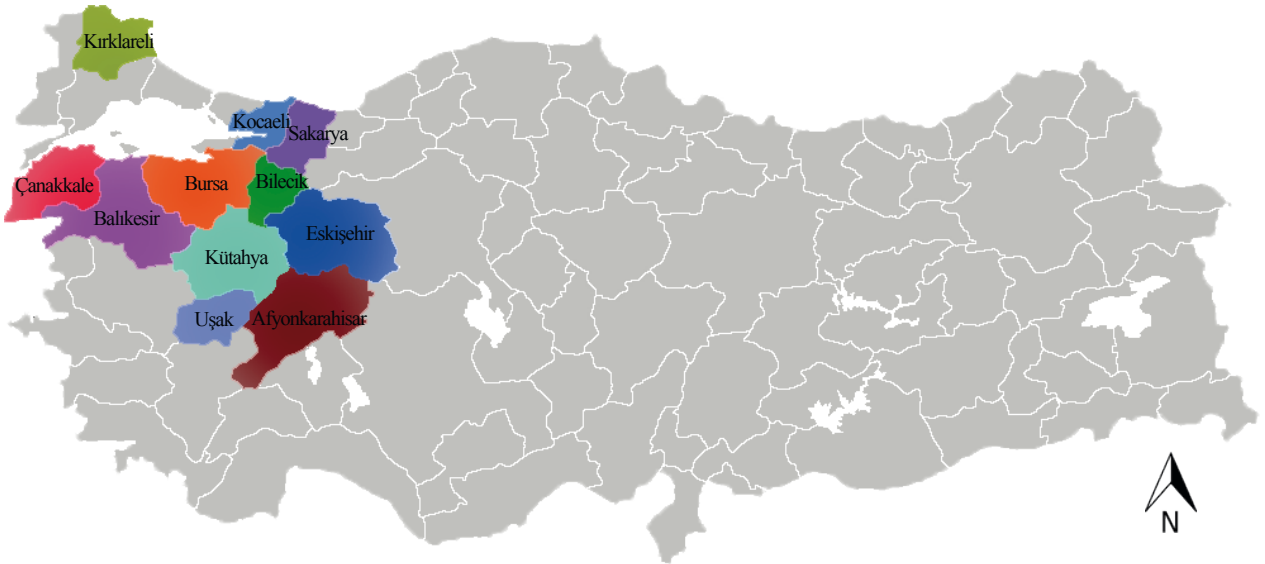


Figure. Study area in Turkey.

Remarks: This species was previously known only in Erzurum (Starý, 2007). General coloration yellow, head grayish brown. Antenna with yellow basal segments and black flagellar segments.

Paleartic distribution: Austria, Belgium, Bulgaria, Czech Republic, France, Germany, Great Britain, Ireland, Italy, Macedonia, Poland, Romania, Serbia, Slovakia, Slovenia, Switzerland, Ukraine, Turkey (Oosterbroek, 2015).

***Dicranota (Paradicranota) flammatra* Starý, 1981**

Material examined: 59 ♂♂, 9 ♀♀. Bilecik: Yeniköy (40°06'N, 30°05'E), 487 m, 02.05.2009, 1 ♂, 1 ♀; Bozüyük, Alibeydüzü (39°56'N, 30°04'E), 920 m, 15.05.2010, 2 ♂♂. Bursa: *Mustafakemalpaşa*, Muradiyesarnıç (39°55'N, 28°23'E), 265 m, 28.04.2009, 1 ♂; Suuçtu (39°54'N, 28°23'E), 455 m, 28.04.2009, 1 ♂; (39°54'N, 28°23'E), 370 m, 28.04.2009, 1 ♂; Yalıntaş (39°58'N, 28°22'E), 253 m, 28.04.2009, 1 ♂. *Osmangazi*, Çaybaşı (40°02'N, 29°04'E), 970 m, 10.10.2009, 3 ♂♂; Mürseller (40°07'N, 29°01'E), 1060 m, 10.10.2009, 1 ♂, 1 ♀; Uludağ (40°08'N, 29°01'E), 880 m, 27.04.2009, 2 ♂♂, 2 ♀♀; Uludağ (40°08'N, 29°02'E), 1060 m, 19.05.2009, 1 ♂; Uludağ, National Park (40°06'N, 29°05'E), 1530 m, 19.05.2009, 1 ♀. Çanakkale: *Bayramiç*, Evciler, Ayazmana (39°44'N, 26°50'E), 430 m, 25.10.2009, 1 ♂; *Yenice*, Kalkım, Kaz Mountains (39°41'N, 27°09'E), 625 m, 17.10.2008, 4 ♂♂; (39°42'N, 27°10'E), 605 m, 16.05.2009, 2 ♂♂. Kırklareli: Kadıköy (41°49'N, 27°10'E), 260 m, 10.05.2009, 3 ♂♂; Üsküp, Çukurpınar (41°49'N, 27°28'E), 435 m, 27.10.2009, 1 ♂; 325 m, 27.10.2009, 1 ♂; *Demirköy*, Pınarhisar (41°46'N, 27°41'E), 618 m, 11.05.2009, 1 ♂; *Pınarhisar* (41°47'N, 27°43'E), 643 m, 20.06.2009, 1 ♀; *Koçgaz*, Taştepe (41°57'N, 27°08'E), 510 m, 10.05.2009, 1 ♂; *Pınarhisar*, Yenice, Jandarma hill (41°45'N, 27°41'E), 780 m, 20.04.2009, 8 ♂♂, 1 ♀;

(41°45'N, 27°40'E), 780 m, 11.05.2009, 3 ♂♂, 2 ♀♀; Manyetik area (41°44'N, 27°39'E), 565 m, 29.10.2009, 1 ♂. Kocaeli: *Karamürsel*, Kızderbent (40°34'N, 29°31'E), 223 m, 04.05.2009, 3 ♂♂; Oluklu (40°39'N, 29°35'E), 375 m, 04.05.2009, 15 ♂♂. Sakarya: *Karasu*, Limandere (40°59'N, 30°36'E), 18 m, 03.05.2009, 2 ♂♂.

Remarks: The species is recorded for the first time in Turkey. General coloration brownish yellow. Antenna yellowish brown. Antenna with yellow basal segments and black flagellar segments.

Paleartic distribution: Andorra, Austria, Bulgaria, Czech Republic, France, Germany, Italy, Poland, Romania, Slovakia, Switzerland (Oosterbroek, 2015).

***Dicranota (Paradicranota) fuscipennis* Lackschewitz, 1940**

Material examined: 2 ♂♂, 4 ♀♀. Afyonkarahisar: *Sultandağı*, Deresine-Sultandağı (38°32'N, 31°09'E), 1209 m, 25.05.2011.

Remarks: The species is recorded for the first time in Turkey. General body coloration brownish black. Antenna yellowish brown.

Paleartic distribution: Austria, Bulgaria, France, Germany, Italy, Romania, Switzerland (Oosterbroek, 2015).

***Dicronata (Paradicronata) landrocki* Czizek, 1931**

Material examined: 33 ♂♂, 5 ♀♀. Balıkesir: *Edremit*, Beyoba, Hasanboğuldu (39°38'N, 26°55'E), 385 m, 24.10.2009, 3 ♂♂, 1 ♀. Bursa: *Mustafakemalpaşa*, Muradiyesarnıç (39°55'N, 28°23'E), 274 m, 20.10.2008, 5 ♂♂; Suuçtu (39°54'N, 28°23'E), 415 m, 20.10.2008, 6 ♂♂, 3 ♀♀. Çanakkale: *Bayramiç*, Evciler, Ayazma (39°44'N, 26°50'E), 500 m, 19.10.2008, 5 ♂♂; *Yenice*, Kalkım, Kaz Mountains (39°41'N, 27°09'E), 625 m, 17.10.2008, 5 ♂♂, 1 ♀. Eskişehir, *Sarıcakaya*, Mayıslar-Dağküplü

**Table.** Checklist of the Pediciidae species in Turkey.

Species	Notes	Provinces
Pediciinae		
<i>Dicranota (Ludicia) iranensis</i> (Alexander, 1975)	a, W	Ri
<i>Dicranota (Ludicia) lucidipennis</i> (Edwards, 1921)	a, W, NR	Ça
<i>D. (Paradicranota) flammatra</i> Stary, 1981	a, e, W, NT, NR	Bi, Bu, Ça, K1, Ko, Sa
<i>D. (P.) fuscipennis</i> Lackschewitz, 1940	a, W, NT, NR	Af
<i>Dicranota (P.) robusta</i> Lundstrom, 1912	a, W	Unknown
<i>D. (P.) landrocki</i> Czizek, 1931	a, W, E, NT, NR	Ba, Bu, Ça, Es, Kü
<i>D. (P.) schistacea</i> Lackschewitz, 1940	a, W, NT, NR	Kü, Uş
<i>D. (D.) subtilis</i> Loew, 1871	a, e, W, NT, NR	Ba, Bu, Ça, Es, K1
<i>Pedicia (Amalopsis) ericarum</i> Alexander, 1966	a, W, O	Bo
<i>Pedicia (A.) occulta</i> (Meigen, 1830)	a, W, NR	Bu, Es, K1
<i>P. (Crunobia) littoralis</i> (Meigen, 1804)	a, e, W, NR	Ba, Bu, Ça, K1, Ko
<i>Pedicia (Crunobia) tjederi</i> Mendl, 1974	a, W	Ri, Ar
<i>P. (C.) zernyi</i> (Lackschewitz, 1940)	a, W, NR	Bu, Ça, Ko
<i>Tricyphona (T.) immaculata</i> (Meigen, 1804)	a, W, E, NR	Af, Bu, Ça, Es, Ko
<i>T. (T.) unicolor</i> (Schummel, 1829)	a, W, NT, NR	Es
<i>Tricyphona (Tricyphona) zwicki</i> Mendl, 1973	a W	An
Ulinae		
<i>Ula (U.) mollissima</i> Haliday, 1833	a, e, W, NR	Bu, K1, Kü

NR: New record for the research area's fauna, NT: new record for Turkish fauna, a: known from the Asiatic part of Turkey, e: known from the European part of Turkey, W: known from the West Palearctic, E: known from the East Palearctic, O: known from the Oriental region. Provinces of Turkey: Afyonkarahisar (Af), Ankara (An), Artvin (Ar), Balıkesir (Ba), Bilecik (Bi), Bolu (Bo), Bursa (Bu), Çanakkale (Ça), Eskişehir (Es), Kırklareli (K1), Kütahya (Kü), Kocaeli (Ko), Rize (Ri), Sakarya (Sa), Uşak (Uş).

(40°00'41"N, 30°39'45"E), 314 m, 17.03.2014, 1 ♂; *Sarıcakaya*, Dağküplü-Yarımcı (39°56'57"N, 30°40'20"E), 1139 m, 17.03.2014, 1 ♂; *Alpu*, Taycılar-Alapınar (40°00'55"N, 30°50'44"E), 1109 m, 18.03.2014, 1 ♂; *Karakütük* (39°59'22"N, 31°06'50"E), 1289 m, 19.03.2014, 6 ♂♂; *Mihalıçcık*, Karacaören-Otluk (40°00'28"N, 31°07'28"E), 1120 m, 19.03.2014, 2 ♂♂. Kütahya: *Tavşanlı*, Aliköy (39°30'N, 29°39'E), 1070 m, 20.04.2010, 2 ♂♂.

Remarks: The species is recorded for the first time from Turkey. General body coloration brown. Head and thorax dark brown, abdomen brown.

Palearctic distribution: Austria, Bulgaria, Czech Republic, France, Germany, Hungary, Italy, Lithuania, Romania, Slovakia, Switzerland, Ukraine, Russia, Morocco, Georgia, Armenia, Azerbaijan, Lebanon, Tajikistan (Oosterbroek, 2015).

***Dicranota (Paradicranota) schistacea* Lackschewitz, 1940**

Material examined: 5 ♂♂, 4 ♀♀. Kütahya: *Tavşanlı*, Kayı, Kocaçay (39°30'N, 29°32'E), 840 m, 20.04.2010, 2

♂♂. Uşak: *Banaz*, Büyükturak (38°46'N, 29°49'E), 955 m, 01.05.2009, 3 ♂♂, 4 ♀♀.

Remarks: The species is recorded for the first time in Turkey. General body coloration blackish brown. Head and thorax blackish brown, abdomen brown. General leg coloration yellowish brown.

Palearctic distribution: Austria, Bulgaria, Czech Republic, France, Germany, Romania, Slovakia, Ukraine (Oosterbroek, 2015).

***Dicronata (Paradicranota) subtilis* Loew, 1871**

Material examined: 22 ♂♂, 3 ♀♀. Balıkesir: *Edremit*, Beyoba, Hasanboğuldu (39°38'N, 26°55'E), 385 m, 16.05.2009, 4 ♂♂, 1 ♀. Bursa: *Mustafakemalpaşa*, Muradiyesarnıç, Suuçtu (39°54'N, 28°23'E), 455 m, 18.05.2009, 5 ♂♂. Çanakkale: *Yenice*, Kalkım, Kaz Mountains (39°42'N, 27°10'E), 605 m, 16.05.2009, 7 ♂♂. Eskişehir, *Mihalıçcık*, Gözeler (39°57'50"N, 31°29'19"E), 897 m, 08.10.2013, 1 ♂. Kırklareli: *Pınarhisar*, Yenice, Jandarma hill (41°45'N, 27°41'E), 780 m, 20.04.2009, 5 ♂♂, 2 ♀♀.

Remarks: The species is recorded for the first time in Turkey. General body coloration blackish gray. Specimens found in this study have a narrower wing compared to European materials.

Paleartic distribution: Austria, Belgium, Bulgaria, Czech Republic, Denmark, Finland, France, Germany, Great Britain, Greece, Iceland, Ireland, Italy, Lithuania, Montenegro, Netherlands, Norway, Poland, Romania, Serbia, Slovakia, Sweden, Switzerland, Ukraine, Russia, Georgia, Armenia, Azerbaijan (Oosterbroek, 2015).

***Pedicia (Amalopsis) occulta (Meigen, 1830)***

Material examined: 36 ♂♂, 12 ♀♀. Bursa: *Osmangazi*, Uludağ National Park, Old Mine (40°06'N, 29°09'E), 2010 m, 07.08.2010, 23 ♂♂; 24.08.2009, 2 ♀♀; Uludağ (40°08'N, 29°01'E), 875 m, 19.05.2009, 1 ♀; Uludağ National Park (40°06'N, 29°05'E), 1530 m, 19.05.2009, 1 ♀; Uludağ, National Park (40°06'N, 29°06'E), 1740 m, 19.05.2009, 2 ♂♂, 3 ♀♀. Eskişehir: Taycılar-Alapınar (39°58'31"N, 30°52'42"E), 1278 m, 18.03.2014, 2 ♂♂. Kırklareli: *Demirköy*, Dupnisa cave (41°50'N, 27°33'E), 350 m, 11.05.2009, 1 ♀; *Pınarhisar*, Yenice, Jandarma hill (41°45'N, 27°40'E), 780 m, 11.05.2009, 2 ♀♀; Yenice, Manyetik area (41°44'N, 27°39'E), 565 m, 20.04.2009, 3 ♂♂, 2 ♀♀; 29.10.2009, 6 ♂♂.

Remarks: This species was previously known in Bolu and Kastamonu (Koç et al., 2005) and Erzurum (Starý and Oosterbroek, 2008) in Turkey. General body coloration rust-yellow. Dorsal part of body darker. The basal part of femur yellowish brown, the remaining brownish black.

Paleartic distribution: Albania, Andorra, Austria, Belgium, Bosnia-Herzegovina, Bulgaria, Czech Republic, France, Germany, Great Britain, Greece, Hungary, Ireland, Italy, Luxembourg, Macedonia, Montenegro, Poland, Portugal, Romania, Serbia, Slovakia, Slovenia, Spain, Switzerland, Ukraine, Georgia, Armenia, Azerbaijan, Turkey, Cyprus, Lebanon (Oosterbroek, 2015).

***Pedicia (Crunobia) littoralis (Meigen, 1804)***

Material examined: 20 ♂♂, 2 ♀♀. Balıkesir: *Edremit*, Kaz Mountains, Beyoba, Hasanboğuldu, (39°38'N, 26°55'E), 385 m, 12.07.2008, 1 ♂, 1 ♀; Padişah Pınarı (39°40'N, 26°48'E), 1135 m, 09.08.2010, 3 ♂♂; *Erdek*, Çakılköy (40°27'N, 28°01'E), 26 m, 24.04.2010, 3 ♂♂. Bursa: *Osmangazi*, Uludağ (40°08'N, 29°01'E), 875 m, 19.05.2009, 1 ♂; Uludağ (40°08'N, 29°02'E), 1060 m, 19.05.2009, 4 ♂♂; 25.06.2009, 1 ♂. Çanakkale: *Yenice*, Çalköy (39°59'N, 27°07'E), 435 m, 25.10.2009, 1 ♂; Kaz Mountains, Kalkım (39°42'N, 27°10'E), 640 m, 11.07.2010, 1 ♀. Kırklareli: *Demirköy*, Macur Fountain (41°52'N, 27°58'E), 10 m, 29.08.2009, 2 ♂♂; *Yeşilce* (41°52'N, 27°43'E), 510 m, 20.06.2009, 1 ♂. Kocaeli: *Kartepe* (40°39'N, 30°07'E), 1190 m, 09.07.2010, 3 ♂♂.

Remarks: This species was previously known only in Bolu, Turkey (Starý and Oosterbroek, 2008). General body

coloration brown. General leg coloration brown, distal end of its segments dark brown.

Paleartic distribution: Austria, Belgium, Bosnia-Herzegovina, Bulgaria, Croatia, Czech Republic, Denmark, France, Germany, Great Britain, Hungary, Ireland, Italy, Macedonia, Montenegro, Netherlands, Poland, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Ukraine, Turkey (Oosterbroek, 2015).

***Pedicia (Crunobia) zernyi (Lackschewitz, 1940)***

Material examined: 10 ♂♂, 4 ♀♀. Bursa: *İnegöl*, Güneykeşane (39°56'N, 29°43'E), 530 m, 07.07.2010, 1 ♂, 1 ♀; *Osmangazi*, Uludağ National Park, Bakacak (40°08'N, 29°08'E), 1740 m, 06.08.2010, 3 ♂♂. Çanakkale: *Bayramiç*, Evciler, Kaz Mountains, Düden (39°41'N, 26°47'E), 1265 m, 13.07.2008, 2 ♂♂; *Ayazmana* (39°44'N, 26°50'E), 430 m, 26.07.2009, 2 ♂♂, 1 ♀; *Yenice*, Kaz Mountains, Kalkım (39°42'N, 27°10'E), 640 m, 11.07.2010. Kocaeli: *İzmit*, Kartepe Mountain (40°39'N, 30°06'E), 1270 m, 23.08.2009, 2 ♂♂, 2 ♀♀.

Remarks: This species was previously known in Ankara, Bartın, Bolu, Kastamonu, Sinop, and Zonguldak (Koç et al., 2005) in Turkey. General body coloration brownish yellow. Dorsal part of body brown. Wing pale brown. General leg coloration black, but basal half of the femur yellow. Distal part of femur, tibia, and base of wing blackish brown.

Paleartic distribution: Albania, Austria, Croatia, Greece (incl. Kerkyra [Corfu]), Romania, Turkey (Oosterbroek, 2015).

***Tricyphona (Tricyphona) immaculata (Meigen, 1804)***

Material examined: 30 ♂♂, 10 ♀♀. Afyonkarahisar: *İhsaniye* (39°04'N, 30°33'E), 751 m, 07.06.2009, 2 ♂♂, 1 ♀; *Hocalar*, Çepni, trout farm (38°37'N, 30°04'E), 1297 m, 22.05.2011, 7 ♂♂, 2 ♀♀; Yağcı-Yörük (38°41'N, 30°06'E), 1701 m, 22.05.2011, 1 ♂, 1 ♀; *Sandıklı* (38°41'N, 30°19'E), 1257 m, 27.04.2011, 3 ♂♂; *Çiğiltepe* (38°41'N, 30°17'E), 1312 m, 21.06.2011, 1 ♂; *Sinanpaşa*, Saraysuyu (38°45'N, 30°14'E), 1122 m, 27.04.2011, 5 ♂♂, 1 ♀. Bursa: *Mustafakemalpaşa*, Muradiyesarnıç, Suuçtu (39°54'N, 28°23'E), 455 m, 18.05.2009, 5 ♂♂, 2 ♀♀. Çanakkale: *Bayramiç*, Evciler, Ayazmana (39°44'N, 26°50'E), 430 m, 17.05.2009, 3 ♂♂, 2 ♀♀. Eskişehir: *Mihalıççık*, Bahçekuyu-Yalınkaya (37°57'25"N, 31°12'46"E), 1543 m, 22.04.2014, 3 ♂♂, 1 ♀.

Remarks: This species was previously known only in Erzurum (Starý and Oosterbroek, 2008). General body coloration brownish black. Wing pale brown. General leg coloration black, but basal half of the femur yellow.

Paleartic distribution: Andorra, Austria, Belgium, Bosnia-Herzegovina, Bulgaria, Czech Republic, Denmark, Estonia, Finland, France, Germany, Great Britain, Hungary, Ireland, Italy, Latvia, Lithuania, Luxembourg,

Macedonia, Montenegro, Netherlands, Norway, Poland, Portugal, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Ukraine, Russia, Georgia, Armenia, Azerbaijan, Turkey, Lebanon, Kazakhstan, Kyrgyzstan (Oosterbroek, 2015).

***Tricyphona (Tricyphona) unicolor (Schummel, 1829)***

Material examined: 1 ♂. Eskişehir: *Alpu*, Arıkaya-Sündiken Hill (39°58'06"N, 31°04'50"E), 1628 m, 27.06.2013, 1 ♂.

Remarks: The species is recorded for the first time in Turkey. General body coloration yellowish brown. General leg coloration yellow, but distal half of the femur brown, and last two tarsal segments blackish brown.

Palaearctic distribution: Austria, Belgium, Czech Republic, Denmark, Estonia, Finland, France, Germany, Great Britain, Italy, Latvia, Lithuania, Netherlands, Norway, Poland, Romania, Slovakia, Slovenia, Sweden, Switzerland, Ukraine, Russia (Oosterbroek, 2015).

**Subfamily Ulinae**

***Ula (Ula) mollissima Haliday, 1833***

Material examined: 5 ♂♂, 3 ♀♀. Bursa: *Mustafakemalpaşa*, Muradiyesarnıç, Suuçtu (39°54'N, 28°23'E), 455 m, 24.08.2008, 1 ♂. Kırklareli: *Demirköy*, Gökyaka (41°52'N, 27°37'E), 355 m, 20.04.2009, 2 ♀♀; *Pınarhisar* (41°47'N, 27°43'E), 643 m, 20.06.2009, 1 ♂; Sarpdere (41°52'N, 27°35'E), 370 m, 20.04.2009, 2 ♂♂. Kütahya: *Domaniç*, Sefaköyü, Bozüyük (39°52'N, 29°38'E), 1111 m, 17.07.2011, 1 ♂; *Domaniç-Bozüyük Road* (39°52'N, 29°38'E), 1276 m, 17.07.2011, 1 ♀.

Remarks: This species was previously known only in Ankara in Turkey (Bayram, 2001). General body coloration yellowish brown, wing membrane with macrotrichia, antenna with yellowish basal segments and blackish flagellar segments.

Palaearctic distribution: Austria, Belgium, Bulgaria, Czech Republic, Denmark, Finland, France, Germany, Great Britain, Hungary, Ireland, Italy, Lithuania, Netherlands, Norway, Poland, Romania, Slovakia, Sweden, Switzerland, Ukraine, Russia, Georgia, Turkey (Oosterbroek, 2015).

In this study, 12 pediciid species are given from central and northwestern Turkey. Of these, six are recorded for the first time in Turkey. With the additions of this paper, the number of Pediciidae species in Turkey has increased to 17. The Turkish pediciid fauna is still poorly investigated; this is reflected in the high rate of new records.

Five of the new records are from the West Palearctic, and only *Dicranota (Paradicranota) landrocki* is from both

the West and East Palearctic. Two of the new records, *D. (P.) landrocki* and *D. (P.) subtilis*, are distributed in the Euro-Siberian, Turan-Persian, and Mediterranean subregions of the West Palearctic. The remaining species found in this study are distributed in the Euro-Siberian and Mediterranean subregions.

Comparing the species diversity detected in different provinces within the research area, the provinces with the highest number of species are Bursa and Çanakkale with 8 and 7 species, respectively. This high number can be linked to the variety of habitats, from forests to open grasslands, especially in the Kaz Mountains, Ayazmana, and Uludağ National Park, which show less severe human impact. In these places there is a large number of springs, rivers, and creeks, which create appropriate conditions for the survival and feeding of pediciid larvae.

*Dicranota (Ludicia) lucidipennis*, *Tricyphona (Tricyphona) immaculata*, *Pedicia (Crunobia) littoralis*, and *Ula (Ula) mollissima* are recorded for the second time in Turkey. The distribution of these species in Turkey is updated through this study. Their distribution extends from East Anatolia to Northwest Anatolia for *D. (L.) lucidipennis* known in Erzurum, from East Anatolia to Central and Northwest Anatolia for *T. (T.) immaculata* known in Erzurum, from the Western Black Sea region of Turkey to Northwest Anatolia for *P. (C.) littoralis* known in Bolu, and from Central Anatolia to Northwest Anatolia and the European part of Turkey for *U. (U.) mollissima*, known only in Ankara.

With this faunistic study, the distribution of the family Pediciidae in the Palearctic is expanded. The southern borders of distribution of *Tricyphona (Tricyphona) unicolor* and *Dicranota (Paradicranota) schistacea* are extended to Inner Central Anatolia and West Anatolia, respectively. Moreover, the eastern border of distribution of European species *Dicranota (Paradicranota) fuscipennis* is extended to the Asian part of Turkey.

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