

Kahramanmaraş İli Terellinae (Diptera:Tephritidae) Faunası

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Makale Kodu (Article Code): 10-11A

Özet: Bu çalışma 2009-2010 yıllarında Kahramanmaraş ilinden toplanan Terellinae (Diptera: Tephritidae) örneklerine dayanmaktadır. Araştırma bölgesi içerisinde on iki Terellinae türü [*Chaetorellia carthami* Stackelberg, *C. loricata* (Rondani), *C. succinea* (Costa), *Chaetostomella cylindrica* (Robineau-Desvoidy), *Terellia ceratocera* Hendel, *T. fuscicornis* (Loew, 1844), *T. gynaecochroma* (Hering), *T. nigripalpis* Hendel, 1927, *T. quadratula* (Loew, 1869), *T. ruficauda* (Fabricius, 1794), *T. serratulae* (Linneaus) ve *Terellia virens* (Loew)] belirlenmiştir. Her bir türün kanat desenleri ve Zoocoğrafik yayılışları verilmiştir.

Anahtar kelimeler: Terellinae, Tephritidae, Diptera, Fauna, Kahramanmaraş, Türkiye

The Terellinae (Diptera: Tephritidae) Fauna of Kahramanmaraş Province, Turkey^[1]

Abstract: This study based on the Terellinae (Diptera: Tephritidae) material collected in Kahramanmaraş province of Turkey in years 2009 and 2010. Twelve species [*Chaetorellia carthami* Stackelberg, *C. loricata* (Rondani), *C. succinea* (Costa), *Chaetostomella cylindrica* (Robineau-Desvoidy), *Terellia ceratocera* Hendel, *T. fuscicornis* (Loew, 1844), *T. gynaecochroma* (Hering), *T. nigripalpis* Hendel, 1927, *T. quadratula* (Loew, 1869), *T. ruficauda* (Fabricius, 1794), *T. serratulae* (Linneaus) and *Terellia virens* (Loew)] of Terellinae were identified in the study region. The figures of wing patterns of each species are given. The zoogeographical distribution of the species is included.

Key words: Terellinae, Tephritidae, Diptera, Fauna, Kahramanmaraş, Turkey

^[1] The paper was produced from Master Thesis of first author

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Introduction

The fruit flies (Tephritidae) are one of the families of the Acalyptrate Diptera, numbering over 4300 valid species worldwide (Norrbom 2004). Many species of fruit flies, especially the subfamily Tephritinae, develop in plants of the family Asteraceae (Freidberg and Kugler 1989). Ninety-four species of fruit flies were reported in Turkey by Kütük (2003a). In addition, *Terellia yukseli* Kütük (2009b) were described from Turkey. Kütük and Özgür (2003b), *Terellia quadratula* (Loew), *T. ceratocera* (Hendel), *T. lappae* (Cederhjel), *T. ruficauda* (Fabricius), *T. winthemi* (Meigen), Özgür and Kütük (2003), *Terellia rhapontici*, Kütük and Varol (2006), *Terellia gynaecochroma* (Hering 1937), *T. luteola* (Wiedemann 1830) have also been recorded in Turkey.

Materials and Method

Adult specimens were collected using an insect net from the host plant in various locations in province of Kahramanmaraş in Turkey, during 2009 and 2010. These specimens are deposited at the insect museum of Gaziantep University, Department of Biology. Species were identified using the keys by Hendel (1927), White (1988), Freidberg and Kugler (1989), Merz (1994), Korneyev and White (2000) and Kütük (2003a). The terminology follows primarily White et al (2000).

Results

In this study, 12 species of Terellinae [*Chaetorellia carthami* Stackelberg, *C. loricata* (Rondani), *C. succinea* (Costa), *Chaetostomella cylindrica* (Robineau-Desvoidy), *Terellia ceratocera* Hendel, *T. fuscicornis* (Loew 1844), *T. gynaecochroma* (Hering), *T. nigripalpis* Hendel 1927, *T. quadratula* (Loew 1869), *T. ruficauda* (Fabricius 1794), *T. serratulae* (Linneaus) and *Terellia virens* (Loew)] of 3 genera were collected in Kahramanmaraş. Species are listed in alphabetical order and the wing pictures of species are presented.

1. *Chaetorellia carthami* Stackelberg 1929; (Figure 1)

Specimens examined: 1 ♂, 1 ♀, Kahramanmaraş, Geben, 37° 44' N, 36° 27' E, 1255 m, 18.07.2009; 2 ♂♂, 3 ♀♀, Düğünürdu, 38° 08' N, 36° 41' E, 1389 m, 19.07.2009; 1 ♂, 1 ♀, Narlı, 37° 20' N, 37° 09' E, 686 m, 13.05.2010;

Distribution: Cyprus, Israel, Iraq, Uzbekistan (White and Marquardt 1989) Turkey (Kütük and Özgür 2003b).

2. *Chaetorellia loricata* (Rondani, 1830); (Figure 2)

Specimens examined: 2 ♂♂, 4 ♀♀, Kahramanmaraş, Düğünürdu, 38° 08' N, 36° 41' E, 1389 m, 19.07.2009; 4 ♂♂, 5 ♀♀, Kahramanmaraş, Düğünürdu, 38° 07' N, 36° 42' E, 1480 m, 19.07.2009; 4 ♂♂, 2

♀♀, Narlı, 37° 20' N, 37° 09' E, 686 m, 13.05.2010.

Distribution: Most of Europe, except North (Merz and Korneyev 2004); Turkey (White and Marquardt 1989; Kütük and Özgür 2003b).

3. *Chaetorellia succinea* (Costa, 1844); (Figure 3)

Specimens examined: 3 ♂♂, 2 ♀♀, Kahramanmaraş, Göksun, Püren Geçidi, 37° 57' N, 36° 32' E, 1500 m, 18.07.2009; 3 ♂♂, 2 ♀♀, Göksun, 38° 00' N, 36° 29' E, 1338 m, 18.07.2009; 3 ♂♂, 1 ♀, Göksun, Taşoluk, 37° 55' N, 36° 27' E, 1397 m, 18.07.2009; 11 ♂♂, 3 ♀♀, Göksun, 38° 01' N, 36° 29' E, 1340 m, 19.07.2009; 3 ♂♂, Düğünürdu, 38° 08' N, 36° 41' E, 1389 m, 19.07.2009; 1 ♀, Afşin, 38° 12' N, 36° 58' E, 1165 m, 19.07.2010; 1 ♂, 1 ♀, Narlı, 37° 20' N, 37° 09' E, 686 m, 13.05.2010; 2 ♀♀, Narlı, Bölükçam, 37° 26' N, 37° 12' E, 686 m, 13.05.2010; 1 ♂, 1 ♀, Eski Narlı, 37° 25' N, 37° 07' E, 601 m., 13.05.2010; 2 ♀♀, Kılılı, 37° 23' N, 36° 52' E, 516 m, 13.05.2010.

Distribution: South Europe, Kazakhstan, Caucasia, Russia, Iran, Israel, Egypt, Ukraine, Moldova, Azerbaijan, Georgia, Armenia and Turkey (Foote 1984; Freidberg and Kugler 1989).

4. *Chaetostomella cylindrica* (Robineau-Desvoidy 1830); (Figure 4)

Specimens examined: 6 ♂♂, 2 ♀♀, Kahramanmaraş, Göksun, 38° 00' N, 36° 29' E, 1338 m, 18.07.2009; 2 ♂♂, Değirmendere, 37° 53' N, 36° 27' E, 1484 m, 18.07.2009; 2 ♂♂, 2 ♀♀, Beli Yaylası, 37° 51' N, 36° 24' E, 1606 m, 18.07.2009; 1 ♂, Geben, 37° 44' N, 36° 27' E, 1255 m., 18.07.2009; 1 ♂, 2 ♀♀, Göksun, 38° 01' N, 36° 29' E, 1, 1340 m, 9.07.2010; Göksun, 38° 01' N, 36° 29' E, 1340 m., 19.07.2009; 1 ♀, Afşin, 38° 12' N, 36° 58' E, 1165 m, 19.07.2009; 4 ♂♂, Narlı, 37° 20' N, 37° 09' E, 686 m, 13.05.2010; 1 ♂, Narlı, Bölükçam, 37° 26' N, 37° 12' E, 686 m, 13.05.2010; 2 ♂♂, 2 ♀♀, Eski Narlı, 37° 25' N, 37° 07' E, 601 m, 13.05.2010.

Distribution: Most of Europe, except North (Merz and Korneyev 2004); Turkey (Kütük and Özgür 2003b).

5. *Terellia ceratocera* Hendel, 1913; (Figure 5)

Specimens examined: 4 ♂♂, 2 ♀♀, Kahramanmaraş: Göksun, Hutaş, 37° 58' N, 36° 20' E, 1655 m, 24.07.2009.

Distribution: Albania, Austria, Belgium, Britain, Bulgaria, Czech Republic, Danish mainland, Estonia, Finland, French mainland, Germany, Italian mainland, Lithuania, Norwegian mainland, Poland, Romania, Russia Central, Russia East, Slovakia, Sweden, Switzerland, The Netherlands, Turkey and East Palaearctic

(Kütük ve Özgür 2003b; Merz ve Korneyev 2004).

6. *Terellia fuscicornis* (Loew 1844); (Fig. 6)

Specimens examined: 1 ♂, Kahramanmaraş, Göksun, Taşoluk, 37° 55' N, 36° 27' E, 1397 m, 18.07.2009; 1 ♂, 7 ♀♀, Değirmendere, 37° 53' N, 36° 27' E, 1484 m, 18.07.2009; 1 ♀, Beli Yaylası, 37° 51' N, 36° 24' E, 1606 m, 18.07.2010; 1 ♂, 1 ♀, Düğünyardu, 38° 08' N, 36° 41E, 1389 m, 19.07.2009.

Distribution: Crete, Cyprus, French mainland, Greek mainland, Italian mainland, Madeira, Malta, Sardinia, Sicily, Spanish mainland, Israel, Turkey and North Africa, (Giray 1979, Foote 1984, Freidberg ve Kugler, 1989, Kütük ve Özgür 2003b, Özgür ve Kütük 2003, Merz ve Korneyev 2004).

7. *Terellia gynaecochroma* (Hering 1937); (Figure 7)

Specimens examined: 1 ♂, Kahramanmaraş, Geben, 37° 44' N, 36° 27' E, 1255 m, 18.07.2009; 33 ♂♂, 19 ♀♀, Afşin, 38° 12' N, 36° 58' E, 1165 m, 19.07.2009; 4 ♀♀, Narlı, Bölükçam, 37° 26' N, 37° 12' E, 686 m, 13.05.2010; 7 ♂♂, 9 ♀♀, Aksu, 37° 30' N, 36° 53' E, 456 m, 13.05.2010.

Distribution: Croatian Cyprus, Iran Israel, Lebanon, Turkey, Central and South

Europe, Caucasus, (Thompson 1999; Khouzama et al 2002; Kütük ve Varol, 2006, Bjelis 2007).

8. *Terellia nigripalpis* Hendel, 1927; (Figure. 8)

Specimens examined: 4 ♂♂, 7 ♀♀, Kahramanmaraş, Göksun, 38° 00' N, 36° 24' E, 1630 m, 20.06.2009; 2 ♂♂, 2 ♀♀, Andırın, 37° 33' N, 36° 21' E, 1275 m, 20.06.2009.

Distribution: Turkey (Hendel 1927, Kütük 2008a).

9. *Terellia quadratula* (Loew 1869); (Figure 9)

Specimens examined: 14 ♂♂, 11 ♀♀, Kahramanmaraş, Andırın, 37° 33' N, 36° 21' E, 1275 m, 20.06.2009.

Distribution: Armenia Azerbaijan, Georgia, Iran, Israel, Lebanon and Turkey (Foote 1984; Freidberg ve Kugler 1989; Kütük ve Özgür 2003b).

10. *Terellia ruficauda* (Fabricius 1794); (Figure 10)

Specimens examined: 12 ♂♂, 14 ♀♀, Kahramanmaraş, Göksun, Acıelma, 38° 00' N, 36° 24 E, 1675 m, 13.08.2009.

Distribution: Armenia, Austria, Azerbaijan, Belgium, Britain island, Bulgaria, Czech Republic, Danish

mainland, Finland, French mainland, Hungary, Ireland, Italian mainland, Kazakhstan, Kirgizhia, Lithuania, Northern Ireland, Norwegian mainland, Poland, Romania, Russia Central, Russia East, Slovakia, Spanish mainland, Sweden, Switzerland, The Netherlands, Tajikistan, Turkey, Turkmenistan, Ukraine, Uzbekistan, East Palaearctic and Nearctic Region (Foote 1984, Kütük ve Özgür 2003b, Merz ve Korneyev 2004).

11. *Terellia serratulae* (Linneaus, 1758); (Figure 11)

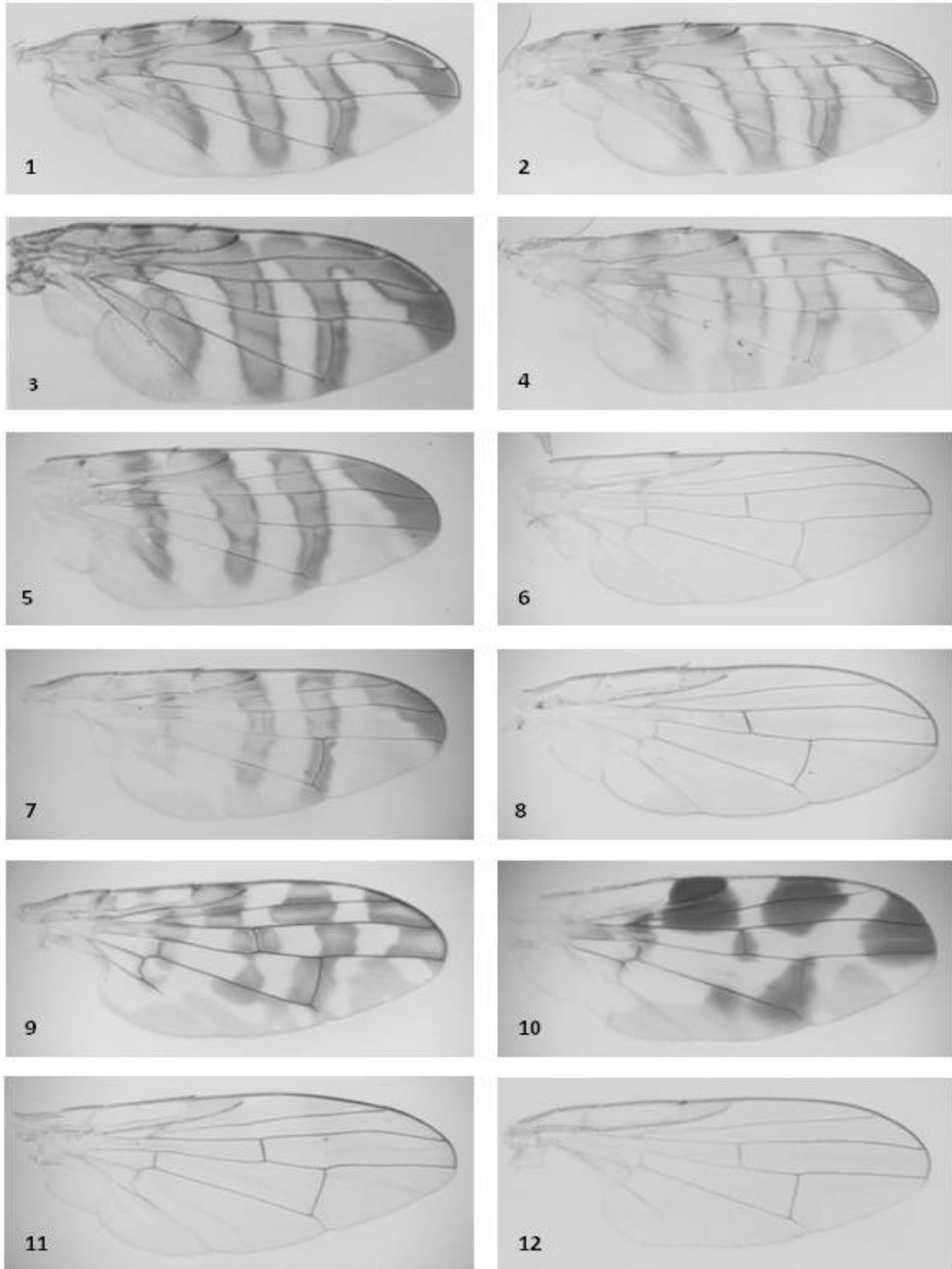
Specimens examined: 7 ♂♂, 5 ♀♀, Kahramanmaraş, Göksun, Acıelma, 38° 00' N, 36° 24' E, 1675 m, 13.08.2009; 1 ♂, Kahramanmaraş, Göksun, Püren Geçidi, 37° 57' N, 36° 32' E, 1500 m, 18.07.2009; 1 ♂, 2 ♀♀, Göksun, Taşoluk, 37° 55' N, 36° 27' E, 1397 m, 18.07.2009; 2 ♂♂, Beli Yaylası, 37° 51' N, 36° 24' E, 1606 m, 18.07.2009; 1 ♂, Geben, 37° 44' N, 36° 27' E, 1255 m., 18.07.2009; 1 ♂, 1 ♀, Göksun, 38° 01' N, 36° 29' E, 1340 m, 19.07.2009; 8 ♂♂, 4 ♀♀, Afşin, 38° 12' N, 36° 58' E, 1165 m, 19.07.2009; 1 ♂, Narlı, Bölükçam, 37° 26' N, 37° 12' E, 686 m, 13.05.2010; 1 ♂, 1 ♀, Eski Narlı, 37° 25' N, 37° 07' E, 601 m, 13.05.2010; 7 ♂♂, 2 ♀♀, Kılılı, 37° 23' N, 36° 52' E, 516 m, 13.05.2010.

Distribution: Albania, Andorra, Armenia, Austria, Azerbaijan, Balearic Islands, Belgium, Britain I., Bulgaria, Channel Island, Chine, Corsica, Crete,

Cyprus, Czech Republic, Danish mainland, Finland, French mainland, Georgia, Germany, Greek mainland, Iran, Iraq, Ireland, Israel, Italian mainland, Kazakstan, Malta, Moldova, Norwegian mainland, Poland, Portuguese mainland, Romania, Russia Central, Russia East, Sardinia, Sicily, Slovakia, Spanish mainland, Sweden, Switzerland, Syria, The Netherlands, Turkey, Ukraine, East Palaearctic and North Africa, (Giray 1979, Foote 1984, Kütük ve Özgür 2003b; Özgür ve Kütük 2003, Merz ve Korneyev 2004).

12. *Terellia virens* (Loew 1846); (Figure 12)

Specimens examined: 6 ♂♂, 10 ♀♀, Kahramanmaraş, Göksun, 38° 00' N, 36° 29' E, 1338 m, 18.07.2009; 1 ♂, Göksun, Taşoluk, 37° 55' N, 36° 27' E, 1397 m, 18.07.2009; 28 ♂♂, 31 ♀♀, Geben, 37° 44' N, 36° 27' E, 1255 m, 18.07.2009; 17 ♂♂, 10 ♀♀, Göksun, 38° 01' N, 36° 29' E, 1340 m,



FIGURES 1-12. Wings of Terellinae: 1- *Chatorellia carthami*, 2- *C. loricata*, 3- *C. succinea*, 4- *Chaetostomella cylindrica*, 5- *Terellia ceratocera*, 6- *T. fuscicornis*, 7- *T. gynaechroma*, 8- *T. nigripalpis*, 9- *T. quadratula*, 10- *T. ruficauda*, 11- *T. serratulae*, 12- *T. virens*.
19.07.2009; 2 ♂♂, 2 ♀♀, Düğünürdu, 38° 08' N, 36° 41' E, 1389 m, 19.07.2010; 1 ♂, 1 ♀, Narlı, 37° 20' N, 37° 09' E, 686 m, 13.05.2010; 2 ♂♂, 1 ♀, Narlı, Bölükçam, 37° 26' N, 37° 12' E, 686 m, 13.05.2010.

Distribution: Albania, Afghanistan, Austria, Bulgaria, Corsica, Czech Republic, French mainland, Germany, Greek mainland, Hungary, Iran, Israel, Italian mainland, Kazakhstan, Poland, Romania, Russia Central, Russia East, Sicily, Slovakia, Spanish mainland, Switzerland, Turkey, Ukraine, East Palaearctic, Nearctic

Region and North Africa (Kütük ve Özgür 2003b, Özgür ve Kütük 2003; Merz ve Korneyev 2004).

Acknowledgments

We thanks to the Project of Research Foundation of Gaziantep University (Project number: FEF.09.07).

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