

## On some Thysanoptera from the Middle Black Sea region of Turkey

İrfan TUNÇ\*

### Summary

The Thysanoptera specimens collected mainly from field crops, vegetables and ornamental plants in the Middle Black Sea region of Turkey in summer of 1983 have been studied. Fifteen species have been recorded, *Dendrothrips saltator* Uzel being new for Turkey.

### Introduction

The Thysanoptera fauna of Black Sea region of Turkey is little known. Blunck (1958) recorded about 25 species from this part of the country during his trips to the tobacco growing areas in Turkey in 1949.

The present short study discloses the species existed in samples collected in the Middle Black Sea region provinces like Samsun, Ordu, Tokat, Çorum and Amasya in summer of 1983. Samples were taken by shaking the plants on a white tray.

The specimens were collected from field crops and vegetables, such as, *Oryza sativa* L., *Zea mays* L., *Nicotiana tabacum* L., *Helianthus annuus* L., *Medicago sativa* L., *Glycine soja* Sieb et Zuc., *Phaseolus vulgaris* L., *Capsicum annum* L., *Lycopersicum esculentum* L., *Solanum melongena* L., *Brassica oleracea* L., *Cucumis sativus* L., and *Allium cepa* L.; ornamental plants including some shrubs, such as, *Antirrhinum* sp., *Aster* sp., *Cheiranthus cheiri* L., *Chrysanthemum segetum* L., *Gomphrena* sp., *Nerium oleander* L., *Ocimum* sp., *Petunia* sp., *Rosa* sp., *Salvia splendens* L., *Tagetes* sp., *Taxus baccata* L.,

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\* University of Akdeniz, Faculty of Agriculture, Department of Plant Protection, Antalya - Turkey.

and *Thuja* sp.: and finally weeds such as, *Amaranthus viridis* L., *Anthemis* sp., *Daucus* sp., *Panicum crus-galli* L., and *Solanum nigrum* L.

The distribution of the locations cited in the text on provincial basis is as follows :

Samsun: Ağıllar, Bafra, Çarşamba, Gelemen, Terme, Çınarlık, Alaçam. Ordu: Ünye. Tokat: Erbaa. Amasya: Taşova, Gökhöyük, Gümüşhacıköy, Suluova. Çorum: Osmaniye.

The material was collected by Misses N. Coşkun and. F. Canik, and is deposited at the Faculty of Agriculture, Antalya.

#### AEOLOTHRIPIDAE

##### *Aeolothrips fasciatus* (Linnaeus)

*Habitat*: Flowers of various plants.

*Distribution*: Europe, N. America, In Turkey: Ankara (Priesner, 1966; Tunç and zur Strassen 1984).

*Material examined*: Çınarlık, 1 ♀, *Ocimum* sp., 17.VIII.1983.

##### *Aeolothrips intermedius* Bagnall

*Habitat*: Flowers and leaves of various plants.

*Distribution*: Palaearctic. In Turkey: Central Anatolia, Aegean, Mediterranean, Marmara and Black Sea regions (Blunck, 1958; Priesner, 1961 and 1966; Alkan, 1962; Cengiz, 1974; Tunç and zur Strassen 1984).

*Material examined*: Ağıllar, 15 ♂♂, 4 ♀♀, *Helianthus annuus*; 2 ♀♀, *Nicotiana tabacum*, both 14.VIII.1983; ibid, 3 ♀♀, *Medicago sativa*, 13.VIII.1983. -Gelemen, 1 ♀, *Capsicum annum*, 12.VIII.1983. -Samsun, 2 ♀♀, *Nerium oleander*; 2 ♂♂, 4 ♀♀, *Rosa* sp; 1 ♀, *Tagetes* sp., all 22.8.1983; ibid, 1 ♀, *Chrysanthemum segetum*; 2 ♀♀, *Petunia* sp, both 6.IX.1983 - Çınarlık, ♂, *Petunia* sp; 1 ♂, 2 ♀♀, *Ocimum* sp, both 17.VIII.1983. -Ünye, 1 ♀, *Aster* sp., 4.IX.1983. -Gökhöyük, 1 ♀, *Cheiranthus cheiri*, 25.VIII.1983; ibid, 1 ♀, *Tagetes* sp, 24.VIII.1983. -Suluova, 1 ♂, *Daucus* sp, 25.VIII.1983.

#### THRIPIDAE

##### *Anaphothrips obscurus* (Müller)

*Habitat*: Graminicolous, injurious to cereals and grass.

*Distribution*: Semi-cosmopolitan. In Turkey: Central Anatolia (Tunç, 1976; Tunç and zur Strassen, 1984).

*Material examined* -f. macroptera: Terme, 1 ♀, *Glycine soja*, 5.IX.1983.

*Ceratothrips discolor* (Karny)

*Habitat*: Flowers of various plants.

*Distribution*: Mediterranean countries, Germany, Rumania, Transcaucasia and Siberia. In Turkey: Central Anatolia, Marmara, Aegean and Black Sea regions (Blunck, 1958; Cengiz, 1974; Tunç and zur Strassen, 1984).

*Material examined*: Çorum, 1 ♀, *Zea mays*, 24.VIII.1983.

*Ceratothrips pallidivestis* (Priesner)

*Habitat*: Flower inhabiting, especially on Compositae.

*Distribution*: Mediterranean area, Black Sea countries and Iran. In Turkey: Central Anatolia, Black Sea, Marmara, Aegean and Mediterranean regions (Blunck, 1958; Priesner, 1966; Tunç and zur Strassen, 1984).

*Material examined*: Samsun, 1 ♀, *Rosa* sp., 22.VIII.1983.

*Chirothrips manicatus* Haliday

*Habitat*: Graminicolous, pest on cereals and grass.

*Distribution*: Semi-cosmopolitan, In Turkey: Central Anatolia and Aegean regions. (Priesner, 1961; Cengiz, 1974; Tunç, 1976; Tunç and zur Strassen, 1984), also in Mediterranean region.

*Material examined*: Çorum, 3 ♀♀, *Zea mays*, 24.VIII.1983.

*Dendrothrips saltator* Uzel

*Habitat*: Leaf inhabiting. On deciduous trees, but also on Apiaceae.

*Distribution*: Euro-siberian. First record for Turkey.

*Material examined*: Gökhöyük, 1 ♀, *Thuja* sp., 24.VIII.1983.

*Frankliniella intonsa* (Trybom)

*Habitat*: Flower inhabiting, polyphag, cause damage to the cotton flowers in Mediterranean coast of Turkey.

*Distribution*: Euro-siberian. In Turkey: Marmara Black Sea, Mediterranean and Central Anatolia regions (Blunck, 1958; Priesner, 1966; Tunç and zur Strassen, 1984).

*Material examined*: Ağıllar, 1 ♂, 2 ♀♀, *Medicago sativa*, 13.VIII.1983. - Çarşamba, 1 ♀, *Brassica oleracea*; 6 ♂♂, 32 ♀♀, *Medicago sativa*, both 25.VIII.1983 - Samsun, 1 ♀, *Nerium oleander*; 1 ♂, 2 ♀♀, *Rosa* sp, both 22.VIII.1983 - Çınarlık, 1 ♀, *Antirrhinum* sp; 4 ♀♀, *Petunia* sp. both 17.VIII.1983 - Ünye, 1 ♂, 3 ♀♀, *Aster* sp, 4.IX.1983 - Ordu, 1 ♀, *Gomphrena*

sp; 3 ♀♀ , *Salvia splendens*; 2 ♂♂ , 7 ♀♀ , *Antirrhinum* sp; 1 ♀ , *Tagetes* sp, all 21.IX.1983.

*Frankliniella tenuicornis* (Uzel)

*Habitat*: Graminicolous.

*Distribution*: Euro - asia, N. America. In Turkey: Central Anatolia and Black Sea regions (Blunck, 1958; Tunç, 1976; Tunç and zur Strassen, 1984), also in Mediterranean region.

*Material examined*: Osmançık, 2 ♀♀ , *Oryza sativa*, 24.VIII.1983.

*Neohydatothrips gracilicornis* (Williams)

*Habitat*: Leaf inhabiting, especially on Leguminosae, but also on deciduous and evergreen trees.

*Distribution*: Palaearctic. In Turkey: Central Anatolia, Marmara, Aegean and Mediterranean regions (Blunck, 1958; Priesner, 1961 and 1966; Tunç and zur Strassen, 1984), also in Eastern Anatolia.

*Material examined*: Ağıllar, 1 ♀ , *Medicago sativa*, 13.VIII.1983 -Gökhöyük, 1 ♀ , *Cheiranthus cheiri*, 25.VIII.1983; ibid, 1 ♂ , 6 ♀♀ , *Taxus baccata*; 1 ♂ , 5 ♀♀ , *Thuja* sp, both 24.VIII.1983.

*Taeniothrips atratus* (Haliday)

*Habitat*: Flowers of various plants.

*Distribution*: Euro-asia, now also in N. America. In Turkey: Central Anatolia, Marmara, Black Sea and Mediterranean regions (Blunck, 1958; Priesner, 1961 and 1966; Tunç and zur Strassen, 1984).

*Material examined*: Bafra, 1 ♀ , *Nicotiana tabacum*, 19.VIII.1983.

*Thrips fuscipennis* Haliday

*Habitat*: On various plants.

*Distribution*: Euro-asia and N. America. In Turkey: Marmara and Aegean regions (Blunck, 1958; Cengiz, 1974).

*Material examined*: Erbaa, 3 ♀♀ , *Phaseolus vulgaris*, I.VII.1983; ibid, 1 ♀ , *Lycopersicum esculentum*, 22.IX.1983. - Samsun, 1 ♀ , *Nerium oleander*; 1 ♀ , *Tagetes* sp., both 22.VIII.1983. -Ünye, 1 ♀ , *Aster* sp., 4.IX.1983.- Çorum, 1 ♂ *Zea mays*, 24.VIII.1983.

*Thrips tabaci* Lindeman

*Habitat*: Polyphag, pest on onion, garlic, tobacco and cotton in Turkey.

*Distribution*: Cosmopolitan. In Turkey: All over the country (Blunck, 1958;

Alkan, 1962; Priesner, 1961 and 1966; Cengiz, 1974; Tunç, 1976; Tunç and zur Strassen, 1984).

*Material examined:* Ağıllar, 9 ♂♂, 23 ♀♀, *Helianthus annuus*, 14.VIII.1983; ibid, 7 ♀♀, *Medicago sativa*; 2 ♀♀, *Phaseolus vulgaris*, both 13.VIII.1983. -Bafra, 1 ♀, *Oryza sativa*; 5 ♀♀, *Lycopersicum esculentum*, both 17.VIII.1938; ibid, 11 ♀♀, *Nicotiana tabacum*, 19.VIII.1983. -Çarşamba, 1 ♂, 20 ♀♀, *Brassica oleracea*; 3 ♀♀, *Medicago sativa*, both 25.VIII.1983; ibid, 6 ♀♀, *Lycopersicum esculentum*; 1 ♂, 6 ♀♀, *Amaranthus viridis*, both 1.IX.1983. -Gelemen 2 ♀♀, *Cucumis sativa*; 1 ♀, *Amaranthus viridis*, both 1.IX.1983; ibid, 1 ♂, 5 ♀♀, *Nicotiana tabacum*, 5.IX.1983; ibid, 5 ♀♀, *Capsicum annum*, 12.VIII.1983. -Samsun, 1 ♀, *Nerium oleander*; 1 ♀, *Rosa* sp.; 5 ♀♀, *Tagetes* sp., all 22.VIII.1983; ibid, 3 ♀♀, *Chrysanthemum segetum*; 1 ♀, *Gomphrena* sp.; 7 ♀♀, *Tagetes* sp.; 2 ♀♀, *Salvia splendens*; 4 ♀♀, *Nerium oleander*, all 6.IX.1983. -Alaçam, 1 ♀, *Solanum melongena*, 19.VIII.1983. -Erbaa, 20 ♀♀, *Phaseolus vulgaris*, 1.VII.1983; ibid, 1 ♀, *Lycopersicum esculentum*, 3.VIII.1983; ibid, 2 ♀♀, *Lycopersicum esculentum*; 11 ♀♀, *Solanum nigrum*, both 22.IX.1983. -Taşova, 5 ♀♀, *Allium cepa*, 25.VIII.1983. -Gökhöyük, 1 ♀, *Cheiranthus cheiri*, 25.VIII.1983; ibid, 8 ♀♀, *Tagetes* sp., 24.VIII.1983. -Gümüşhacıköy, 3 ♀♀, *Anthemis* sp., 24.VIII.1983. -Suluova, 12 ♀♀, *Daucus* sp., 25.VIII.1983. -Ünye, 6 ♀♀, *Tagetes* sp.; 9 ♀♀, *Aster* sp., both 4.IX.1983. -Ordu, 2 ♂♂, 18 ♀♀, *Gomphrena* sp.; 2 ♀♀, *Salvia splendens*; 2 ♀♀, *Antirrhinum* sp.; 8 ♀♀, *Tagetes* sp.; 2 ♂♂, 1 ♀, *Zea mays*, all 21.IX.1983. -Terme, 3 ♀♀, *Glycine soja*, 5.IX.1983. -Çorum, 3 ♀♀, *Zea Mays*, 24.VIII.1983.

#### PHLAEOTHRIPIDAE

##### *Haplothrips aculeatus* (Fabricius)

*Habitat:* Graminicolous.

*Distribution:* Palaearctic, except N. Africa. In Turkey: Black Sea and Aegean regions (Blunck, 1958, Priesner, 1966), also in Mediterranean region.

*Material examined:* Alaçam, 5 ♂♂, 6 ♀♀, *Oryza sativa*, 19.VIII.1983. Bafra, 2 ♂♂, 2 ♀♀, *Oryza sativa*; 2 ♀♀, *Panicum crus-galli*, both 17.VIII.1983. Çınarlık, 2 ♀♀, *Zea mays*, 17.VIII.1983. -Çarşamba, 1 ♂, *Zea mays*, 17.VIII.1983. -Osmancık, 3 ♂♂, 3 ♀♀, *Oryza sativa*, 24.VIII.1983. -Çorum, 1 ♂, 4 ♀♀, *Zea mays*, 24.VIII.1983

##### *Haplothrips phyllireae* Bagnall

*Habitat:* Leaf inhabiting, on deciduous trees.

*Distribution:* Mediterranean and Central Anatolia regions (Priesner, 1966; Cengiz, 1974; Tunç and zur Strassen, 1984).

*Material examined:* Çarşamba, 1 ♀, *Medicago sativa*, 25.VIII.1983.

## Discussion

The number of species found in the area surveyed was 15. Seven of them are new for Black Sea region including *Dendrothrips saltator* Uzel which was recorded for the first time in Turkey (Table 1).

Regarding the material obtained, *Thrips tabaci* Lindeman was the most frequent, diversified and abundant species being found in 42 samples out of 60 totally and on 26 plant species out of 31 totally, and being represented by 256 individuals out of 441 totally. It was followed by *Aeolothrips intermedius* Bagnal in frequency and diversity, but by *Frankliniella intonsa* (Trybom) in abundance. *Neohydatothrips gracilicornis* (Williams) and *Haplothrips aculeatus* (Fabricius) are other noteworthy species for these parameters (table 1).

Distributional pattern of *H. aculeatus* is characteristic in Turkey. It has been found only in coastal regions e.g. Aegean, Black Sea, Mediterranean upto date. Not even a single individual could be traced from the vast cereal growing areas in the inner parts of the country like Ankara or Central Anatolia so far studied (Tunç, 1976; Tunç and zur Strassen, 1984).

The other point of interest is the sex ratio of *Th. tabaci*. It was 1:16 (♂ : ♀) in the area studied whereas it has been 0:833 in Ankara (Tunç and zur Strassen, 1984). A sex ratio of 1:55 approximately was estimated for the area surveyed by Blunck (198) which included localities in Black Sea, Marmara, Aegean and Central Anatolia regions. No males were recorded by Priesner (1961 and 1966) in Central Anatolia, Aegean and Mediterranean regions. Thus the highest ratio of males was recorded in the region under discussion compared with the other areas in Turkey.

Table 1. The Thysanoptera species recorded in the Middle Black Sea region province of Turkey, and their frequency, diversity and abundance in summer of 1983.

		<i>Frequency</i>	<i>Diversity</i>	<i>Abundance</i>
<b>AEOLOTHIRIPIDAE</b>				
+	<i>Aeolothrips fasciatus</i> (Linnaeus)	1	1	1
	<i>Aeolothrips intermedius</i> (Bagnal)	15	13	45
<b>THRIPIDAE</b>				
+	<i>Anaphothrips obscurus</i> (Müller)	1	1	1
	<i>Ceratothrips discolor</i> (Karny)	1	1	1
	<i>Ceratothrips pallidivestis</i> (Priesner)	1	1	1
	<i>Chirothrips manicatus</i> Haliday	1	1	3
++	<i>Dendrothrips saltator</i> Uzel	1	1	1
	<i>Frankliniella intonsa</i> (Trybom)	12	10	69
	<i>Frankliniella tenuicornis</i> (Uzel)	1	1	2

+	<i>Neohydatothrips gracilicornis</i> (Williams)	4	4	20
	<i>Taeniothrips atratus</i> (Haliday)	1	1	1
+	<i>Thrips fuscipennis</i> Haliday	6	6	8
	<i>Thrips tabaci</i> Lindeman	42	26	256
PHLAEOTHIRIPIDAE				
	<i>Haplothrips aculeatus</i> (Fabricius)	7	3	31
+	<i>Haplothrips phyllireae</i> (Bagnal)	1	1	1
TOTAL		60	31	441
		(No. of samples)	(no. of plant species)	(no. of individuals)

+ : New for Blanck Sea region

++ : New for Turkey

*H. aculeatus* was present predominantly in all samples taken from cereals (rice and maize). All samples from field crops (except cereals), vegetables (tomato, pepper, onion, egg-plant, cabbage, cucumber), and most of the ornamental plants contained *T. tabaci* predominantly.

## Özet

### Orta Karadeniz Bölgesinden toplanan bazı thysanopter'ler

Orta Karadeniz Bölgesi illeri Samsun, Ordu, Tokat, Çorum ve Amasya'dan 1983 yazında toplanan Thysanoptera örnekleri incelenmiştir. Özellikle tarla bitkileri, sebze ve süs bitkilerinden alınan örneklerde 15 tür tesbit edilmiştir.

Bunlardan 7 tür Karadeniz Bölgesinde, *Dendrothrips saltator* Uzel ise Türkiye'de ilk defa kaydedilmektedir. *Haplothrips aculeatus* (Fabricius) tahıl, *Thrips tabaci* Lindeman ise diğer tarla bitkileri, sebzeler ve çoğu süs bitkilerinde hakim türdür.

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