

Thysanoptera fauna of the Aegean region, Turkey, in the spring

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Received: 23.11.2011 • Accepted: 13.02.2012

Abstract: The Thysanoptera fauna of the Aegean region of Turkey was studied in the spring of 1993 and 1995. The surveys were conducted in the following provinces: Afyonkarahisar, Aydın, Denizli, İzmir, Manisa, Muğla, and Uşak. A total of 2899 specimens from 405 samples were examined. The study revealed 82 Thysanoptera species, which included new records for the region and Turkey. One genus, *Prosopothrips* Uzel, and 3 species, *Oxythrips halidayi* Bagnall, *Prosopothrips nigriceps* Bagnall, and *Rubiothrips validus* (Karny), are new records for Turkish fauna. The most common and abundant species (represented with the number of samples-specimens) were *Thrips meridionalis* (Priesner) (102-481), *Thrips tabaci* Lindeman (97-287), and *Thrips angusticeps* (76-333). Among the others, *Aeolothrips intermedius* Bagnall (65-161), *Aeolothrips collaris* Priesner (46-96), *Haplothrips reuteri* (Trybom) (54-132), and *Haplothrips tritici* Kurdjumov (35-158) were relatively more frequent and abundant. The majority of the species were Palaearctic, in particular Mediterranean and European, and inhabit woody plants, cereals, and grasses.

Key words: Thysanoptera, thrips, Aegean region, Turkey

Introduction

A fair amount of knowledge on the Thysanoptera (thrips) fauna of the Aegean region of Turkey has been accumulated. However, the data at hand are derived from studies restricted to the fauna in single agroecosystems and areas. The surveys of Cengiz (1974) and Özsemerci et al. (2011) in vineyards of İzmir and/or Manisa provinces, and that of Kılıç and Yoldaş (2004) in the greenhouses of İzmir, though yielding a number of Thysanoptera records, are of this nature. On the other hand, reports by Blunck (1958) and Priesner (1966), which included some records from the region, are based on incidental collections. The present study, unlike the above, aimed to survey an area of the region as wide as possible and examine

diverse plants, wild or cultivated, and it is the first attempt of its kind.

Mediterranean, transitional, and continental climates prevail in the Aegean region. The Mediterranean climate is experienced along coastal areas but may have influence up to 150 km inland from the coast through plains along rivers, mainly Büyük Menderes, Küçük Menderes, and Gediz, which flow to the Aegean Sea. Transitional and continental climates, respectively, are felt as altitude or distance from the coast increase. The region receives moderate precipitation, around 700 mm annually, but this may fall to 550 mm in the innermost parts eastwards. Topography is characterized mainly by plains along coasts and rivers, and highland plains of inland and

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mountainous areas. The highest elevations over the mountains are around 2000 m. The forests, which consist mainly of pines and oaks, occupy a relatively higher percentage of the land compared to the inner regions of Turkey. Macchia is widespread in areas under transitional and Mediterranean influence (İzбірak, 1977; Güler et al., 1990).

The Aegean region is a very rich agricultural area from the point of diversity and the kinds of crops cultivated. Subtropical fruits such as olives, figs, citrus, and pomegranates, and temperate fruits such as cherries, walnut, chestnut, apples, peach, plum, and apricot, are grown. Nevertheless, grapes, figs, and olives are the most important fruit crops in terms of the area in which they are cultivated and the quantity of the produce harvested. Among field crops, as in many parts of Turkey, cereals are the most common and are followed by tobacco, cotton, and winter and summer vegetables. The area allocated for protected crops, mainly vegetables, is increasing.

Materials and methods

The following Aegean region provinces (and their districts) were included in the surveys: Muğla (Fethiye, Köyceğiz, Ortaca, Ula, Milas, and Yatağan), Aydın (Buharkent, Karacasu, Germencik, Nazilli, Yenipazar, Bozdoğan, Çine, Söke, Kuşadası, and Kuyucak), İzmir (Selçuk, Menderes, Bayındır, Ödemiş, Tire, Kiraz, Seferihisar, and Kemalpaşa), Manisa (Turgutlu, Salihli, Sarıgöl, Kula, and Selendi), Denizli (Acıpayam, Serinhisar, Tavas, Çal, Sarayköy, Bekeilli, Çivril, and Buldan), Uşak (Sivaslı), and Afyonkarahisar (Dinar). The search was extended to Çavdır, a district of Burdur Province.

The material was collected on 14-18 June 1993 and between 30 April and 4 May 1995. In our experience, Thysanoptera collections made in the spring, even within limited periods of time, yield the highest number of thrips species compared to other seasons in Turkey. Adult thrips were collected by beating plants or parts of plants over a board of 19 × 31 cm covered with a light green cloth and using a fine brush. The specimens were temporarily preserved in small glass vials containing a fluid made of 9 parts 60% ethyl alcohol and 1 part glacial acetic acid. The material was transferred to permanent

preservation fluid, 60% ethyl alcohol, after preliminary examination and identification with a stereomicroscope. Representative specimens were prepared for slide mounting in Canadian balsam. In total, 2899 specimens were examined from 405 samples.

Thrips collection and identification was carried out by İrfan Tunç; Şerife Ünal Bahşi assisted in material handling and data processing and Hüseyin Göçmen assisted in the field work.

The altitudes of the collection sites were measured using a hand altimeter.

Collection data are arranged according to the districts.

The distribution of the species found in Turkey is given on a provincial basis. The distributional data are based on reports on Thysanoptera fauna of Turkey, mainly those of Blunck (1958), Priesner (1966), Cengiz (1974), Tunç (1976, 1985, 1988, 1991, 1992a, 1992b, 1992c), Tunç and zur Strassen (1984), Tunç et al. (2012), Atakan and Uygur (2005), Tekşam and Tunç (2009), and Özsemerci et al. (2011), and the material was deposited at the Plant Protection Department of the Faculty of Agriculture of Akdeniz University. In order to avoid duplicated presentation, the distribution of those species that also appeared in a recent report (Tunç et al., 2012) is not included here and that report may be referred to for information.

Data on world distribution and hosts are provided only for those species that are new records in Turkey. However, a generalized distribution and hosts of the species found is presented in the discussion section with reference to zur Strassen (2003) for the species in families Aeolothripidae, Fauriellidae, and Thripidae, and to Priesner (1964) and zur Strassen (1970, 1979, 1987, 1988, 1991) for those in the family Phlaeothripidae.

Results

AEOLOTHRIPIDAE

Aeolothrips collaris Priesner

Material: Çavdır, 1000 m, *Coronilla varia*, 1♀, 14.VI.1993; Söğüt, 1440 m, Fabaceae, 1♂, 30.IV.1995-Serinhisar, 900 m, *Vitis vinifera*, 1♂, herb, 1♂, 14.VI.1993-Tavas, Kızılcaölük, 900 m, *Amygdalus*

communis, 1♀, *Euphorbia* sp., 1♀, 1♂, 14.VI.1993-Sarayköy, 200 m, *Punica granatum*, 1♀, *Zea mays*, 1♂, *Althaea* sp., 1♀, 15.VI.1993-Buharkent, 150 m, *Chenopodium* sp., 2♀♀, 15.VI.1993-Kuyucak, Horsunlu, 150 m, herb, 2♀♀, 15.VI.1993-Karacasu, Esençay, forest, 300 m, *Thymbra spicata*, 3♀♀, 1♂, 15.VI.1993-Söke, 50 m, *Vitex agnus-castus*, 1♀, *Verbascum* sp., 1♀, *Malva* sp., 2♀♀, 1♂, *Pyrus elaeagnifolia*, 1♀, *Cystus* sp., 1♀, 1♂, 16.VI.1993-Germencik, Ortaklar, forest, 120 m, *Nerium oleander*, 1♀, 16.VI.1993-Selçuk, 50 m, *Thymbra spicata*, 2♂♂, 16.VI.1993-Ödemiş, 100 m, *Anthemis* sp., 1♀, 16.VI.1993-Bayındır, 50 m, *Vitex agnus-castus*, 1♀, *Verbascum* sp., 1♀, 16.VI.1993-Kemalpaşa, 200 m, *Quercus* sp., 1♂, *Vitex agnus-castus*, 1♀, *Cichorium intybus*, 1♀, 2♂♂, *Malva* sp., 1♂, *Echinocloa crusgalli*, 1♂, *Anthemis* sp., 1♀, 1♂, 17.VI.1993-Salihli, Marmara Lake, 50 m, *Carthamus* sp., 1♂, nursery, 50 m, *Synapis* sp., 2♀♀, 2♂♂, 17.VI.1993-Kula, 420 m, *Althaea* sp., 2♀♀, 3♂♂, *Cynodon dactylon*, 4♀♀, *Prunus persica*, 3♀♀, 17.VI.1993-Selendi, 650 m, *Avena sativa*, 5♀♀, 17.VI.1993-Uşak, 900 m, *Scorzonera* sp., 1♀, 18.VI.1993-Sivaslı, 900 m, *Papaver somniferum*, 1♀, 3♂♂, 18.VI.1993-Çivril, 800 m, *Papaver somniferum*, 1♂, *Malus communis*, 1♀, herb, 3♂♂, *Euphorbia* sp., 2♀♀, 2♂♂, 18.VI.1993-Dinar, 820 m, *Berberis* sp., 2♂♂, *Peganum harmala*, 3♀♀, 1♂, 18.VI.1993-Fethiye, Kargı, 150 m, *Vicia sativa*, 1♂, 01.V.1995-Muğla, 700 m, *Vicia sativa*, 5♀♀, 1♂, herb, 5♀♀, 1♂, 01.V.1995-Çal, 900 m, *Cardaria draba*, 1♂, 04.V.1995.

Aeolothrips fasciatus (Linnaeus)

Material: Sarayköy, 200 m, *Convolvulus* sp., 3♀♀, 15.VI.1993-Buharkent, 150 m, *Zea mays*, 3♀♀, *Ficus carica*, 1♀, 15.VI.1993-Ödemiş, 100 m, *Chenopodium* sp., 1♀, 16.VI.1993-Salihli, nursery, 50 m, *Olea europaea*, 2♀♀, 17.VI.1993-Milas, 100 m, *Raphanus* sp., 1♀, 02.V.1995.

Aeolothrips ericae Bagnall

Material: Muğla, 700 m, herb, 2♀♀, 2♂♂, 01.V.1995

Distribution in Turkey: Antalya, Afyonkarahisar, İzmir, İstanbul, Düzce, Erzincan.

Aeolothrips gloriosus Bagnall

Material: Serinhisar, 900 m, *Vitis vinifera*, 1♀, 14.VI.1993-Söke, 50 m, *Olea europaea*, 1♀,

16.VI.1993-Dinar, 820 m, *Berberis* sp., 3♀♀, *Peganum harmala*, 1♀, 18.VI.1993-Fethiye, Saklıkent, 200 m, *Olea europaea*, 2♀♀, *Pistacia* sp., 1♀, 30.IV.1995; Ölüdeniz, *Quercus* sp., 3♀♀, 01.IV.1995-Milas, Bafa, 100 m, *Quercus* sp., 1♀, 02.V.1995-Çal, 900 m, *Quercus* sp., 1♀, 04.V.1995.

Aeolothrips intermedius Bagnall

Material: Çavdır, 1000 m, *Medicago* sp., 1♀, *Rumex* sp., 1♀, *Avena sativa*, 1♀, 14.VI.1993; Söğüt, 1440 m, Fabaceae, 1♀, 30.IV.1995-Acıpayam, 800 m, *Avena sativa*, 2♀♀, *Triticum* sp., 1♂, 14.VI.1993-Serinhisar, 900 m, *Crataegus* sp., 1♀, Asteraceae, 2♀♀, 1♂, *Vitis vinifera*, 1♂, 14.VI.1993-Tavas, Kızılcabölük, 900 m, *Avena sativa*, 3♀♀, grass, 4♀♀, *Hordeum vulgare*, 2♀♀, 14.VI.1993-Sarayköy, 200 m, *Zea mays*, 6♀♀, 1♂, 15.VI.1993-Buharkent, 150 m, *Vitis vinifera*, 2♀♀, 15.VI.1993-Karacasu, Esençay, forest, 300 m, *Solidago* sp., 1♀, 15.VI.1993-Nazilli, 100 m, *Phragmites* sp., 1♂, 15.VI.1993-Söke, 50 m, herb, 2♀♀, *Althaea* sp., 1♀, 16.VI.1993-Selçuk, 50 m, *Zea mays*, 6♀♀, 4♂♂, 16.VI.1993-Bayındır, 50 m, *Capsicum annuum*, 4♀♀, 16.VI.1993-Kemalpaşa, 200 m, *Althaea* sp., 1♀, 17.VI.1993-Turgutlu, 100 m, *Vitis vinifera*, 2♀♀, 3♂♂, grass, 1♂, *Convolvulus* sp., 6♀♀, 2♂♂, 17.VI.1993-Salihli, Marmara Lake, 50 m, *Typha* sp., 1♀, *Carthamus* sp., 1♂, *Ligustrum* sp., 1♂, *Pinus* sp., 4♀♀, 2♂♂, *Vitis vinifera*, 5♀♀, 1♂, *Tripleurospermum* sp., 5♀♀, 3♂♂, *Sinapis* sp., 4♀♀, 5♂♂, 17.VI.1993-Kula, 420 m, *Althaea* sp., 1♂, 17.VI.1993-Selendi, 650 m, *Quercus* sp., 2♀♀, 1♂♂, 17.VI.1993-Uşak, 900 m, *Avena sativa*, 2♀♀, *Salvia* sp., 5♀♀, 18.VI.1993-Sivaslı, 900 m, *Lamium* sp., 1♀, 18.VI.1993-Fethiye, 1000 m, *Euphorbia* sp., 1♀; Kemer Junction, 200 m, *Avena sativa*, 1♀, 30.IV.1995; 450 m, *Styrax* sp., 1♀, Kargı, 150 m, *Eucalyptus* sp., 1♀, 01.IV.1995-Köyceğiz, *Vicia sativa*, 1♀, 01.V.1995-Muğla, 700 m, *Vicia faba*, 1♀, 1♂, cereal, 3♀♀, *Prunus avium*, 1♀, *Dianthus* sp., 3♀♀, *Triticum aestivum*, 2♀♀, *Trifolium* sp., 3♀♀, 01.V.1995-Yatağan, 740 m, *Triticum aestivum*, 1♀, 01.V.1995-Söke, herb, 2♀♀, 1♂, *Sinapis* sp., 1♂, 02.V.1995-Kemalpaşa, *Raphanus* sp., 1♀, 03.V.1995-Ödemiş, *Avena sativa*, 1♀, 03.V.1995-Sarıgöl, 400 m, *Bromus* sp., 1♀, *Vicia sativa*, 1♀, 03.V.1995-Çal, 640 m, *Triticum aestivum*, 1♀; 940 m, *Prunus avium*, 1♀, cereal, 1♀, 04.V.1995-Çivril, 800 m, *Amygdalus communis*, 1♀, *Papaver somniferum*, 1♀, 2♂♂, herb, 3♀♀, 2♂♂, *Triticum*

aestivum, 1♀, *Euphorbia* sp., 2♀♀, 2♂♂, 18.VI.1993; 900 m, *Amygdalus communis*, 1♀, *Triticum aestivum*, 1♀; Yassihöyük, 870 m, *Medicago sativa*, 1♀, 1♂, *Triticum aestivum*, 1♀; Gümüşsu, 900 m, *Hordeum sativum*, 1♀, 04.V.1995-Dinar, 900 m, cereal, 3♀♀, 04.V.1995.

Aeolothrips linarius Priesner

Material: Acıpayam, 800 m, herb, 1♀, 14.VI.1993-Çal, 900 m, *Cardaria draba*, 2♀♀, 04.V.1995.

Aeolothrips melaleucus Haliday

Material: Muğla, 700 m, *Quercus* sp., 1♂, 01.V.1995-Kiraz, Sarıkaya, 700 m, *Crataegus* sp., 1♀, 03.V.1995-Sarıgöl, 500 m, *Quercus* sp., 1♂, 03.V.1995-Çal, 940 m, herb, 1♀, 04.V.1995.

Aeolothrips tenuicornis Bagnall

Material: Tavas, Kızılcaölük, 900 m, *Crataegus* sp., 4♀♀, 14.VI.1993-Çal, 940 m, herb, 1♀, 2♂♂, 04.V.1995.

Distribution in Turkey: Ankara.

Aeolothrips versicolor Uzel

Material: Fethiye, Saklıkent, 200 m, *Pistacia* sp., 1♀, 30.IV.1995-Söke, *Morus alba*, 1♀, 02.V.1995.

Melanthrips fuscus (Sulzer)

Material: Uşak, 900 m, *Verbascum* sp., 1♀, 18.VI.1993-Milas, Güllük, *Sinapis* sp., 3♂♂; 100 m, *Vicia sativa*, 2♀♀, 2♂♂, *Raphanus* sp., 3♀♀, 5♂♂, 02.V.1995-Kuşadası, 1♀, *Sinapis* sp., 2♀♀, 1♂, 02.V.1995-Seferihisar, cereal, 1♀, 02.V.1995-Denizli, 300 m, *Raphanus* sp., 2♀♀, 04.V.1995-Dinar, 900 m, *Raphanus* sp., 1♂, 04.V.1995.

Melanthrips pallidior Priesner

Material: Muğla, 700 m, Asteraceae, 1♂, *Vicia sativa*, 1♂; herb, 1♀, 01.V.1995-Milas, Selimiye, 150 m, *Myrtus communis*, 1♀; Bafa, 100 m, *Satureja thymbra*, 2♀♀, 1♂, 02.V.1995-Seferihisar, *Trifolium* sp., 6♀♀, 02.V.1995-Kemalpaşa, Asteraceae, 2♀♀, 03.V.1995-Çal, 940 m, herb, 1♂, 04.V.1995.

Melanthrips rivnayi Priesner

Material: Kemalpaşa, *Cercis siliquastrum*, 1♀, 03.V.1995.

Melanthrips trifasciatus Priesner

Material: Tavas, Yahşiler, 1030 m, *Quercus* sp., 1♀, 14.VI.1993-Fethiye, 450 m, *Quercus* sp., 1♀, 01.V.1995-Muğla, 700 m, *Quercus* sp., 1♀, herb, 1♂, 01.V.1995-Kemalpaşa, *Quercus* sp., 2♀♀, 4♂♂, 03.V.1995-Sarıgöl, 400 m, *Quercus* sp., 10♀♀, 500 m, *Quercus* sp., 4♀♀, 2♂♂, 03.V.1995-Buldan, 550 m, *Crataegus* sp., 1♂, *Quercus* sp., 1♂, 03.V.1995-Çal, 700 m, *Pinus* sp., 1♂, 04.V.1995.

Orothrips priesneri (Titschack)

Material: Kiraz, Sarıkaya, 700 m, *Crataegus* sp., 1♀, 03.V.1995.

Rhipidothrips brunneus Williams

Material: Seferihisar, cereal, 11♀♀, 02.V.1995-Ödemiş, *Avena sativa*, 1♀, 03.V.1995.

Rhipidothrips flavus Tunç

Material: Acıpayam, 800 m, *Avena sativa*, 1♀, 14.VI.1993-Çal, 840 m, cereal, 2♀♀, 04.V.1995.

Rhipidothrips graciosus Uzel

Material: Çavdır, 1000 m, *Triticum aestivum*, 1♀, *Avena sativa*, 6♀♀, 14.VI.1993-Selendi, 650 m, *Avena sativa*, 1♀, 17.VI.1993-Fethiye, Kemer Junction, 200 m, *Avena sativa*, 4♀♀, 30.IV.1995-Muğla, 700 m, cereal, 9♀♀, 01.V.1995-Milas, Güllük, *Avena sativa*, 3♀♀, 1♂, 02.V.1995-Kuşadası, *Vicia sativa*, 1♀, 02.V.1995-Kemalpaşa, *Avena sativa*, 4♀♀, 03.V.1995-Kiraz, Sarıkaya, 700 m, *Triticum aestivum*, 1♀, 03.V.1995.

Distribution in Turkey: Antalya, Mersin, Kahramanmaraş, Sakarya, Çankırı, Konya.

FAURIELLIDAE

Ropotamothrips resslı (Priesner)

Material: Uşak, 800 m, *Salvia* sp., 1♀, 18.VI.1993.

Distribution in Turkey: Mersin, Konya (type locality).

THRIPIDAE

Anaphothrips obscurus (Müller)

Material: Buharkent, 150 m, *Zea mays*, 3♀♀, 15.VI.1993-Kuyucak, Horsunlu, 150 m, *Citrus reticulata*, 1♀, 15.VI.1993-Selçuk, 50 m, *Zea mays*, 3♀♀, 16.VI.1993-Ödemiş, 100 m, *Olea europaea*, 1♀, 16.VI.1993-Uşak, 900 m, *Hordeum vulgare*, 1♀,

18.VI.1993-Fethiye, Kemer Junction, 200 m, *Avena sativa*, 1♀, *Juncus* sp., 11♀♀, 30.IV.1995-Muğla, 700 m, Asteraceae, 1♀, *Vicia faba*, 1♀, cereal, 6♀♀, *Fragaria ananasa*, 1♀, *Dianthus* sp., 1♀, *Triticum aestivum*, 2♀♀, 01.V.1995-Milas, 100 m, *Triticum aestivum*, 2♀♀, 02.V.1995-Çivril, Gümüşsu, 900 m, *Hordeum sativum*, 1♀, 04.V.1995.

***Aptinothrips rufus* Haliday**

Material: Çavdır, 1000 m, *Rumex* sp., 1♀, 14.VI.1993; Söğüt, 1440 m, Fabaceae, 1♀, 30.IV.1995-Acıpayam, 800 m, *Triticum* sp., 12♀♀, 14.VI.1993-Ula, Gökova, *Trifolium* sp., 2♀♀, 01.V.1995.

***Bregmatothrips dimorphus* (Priesner)**

Material: Sarayköy, 200 m, grass, 2♀♀, 15.VI.1993-Kemalpaşa, 200 m, grass, 1♀, 17.VI.1993-Kula, 420 m, *Cynodon dactylon*, 4♀♀, *Cynodon dactylon*, 1♀, 17.VI.1993.

***Chirothrips aculeatus* Bagnall**

Material: Sarayköy, 200 m, *Echinochloa crus-galli*, 1♀, 1♂, 15.VI.1993-Nazilli, 100 m, *Phragmites* sp., 1♂, 15.VI.1993-Ödemiş, 100 m, *Echinochloa crus-galli*, 1♀, 1♂, 16.VI.1993-Bayındır, 50 m, *Zea mays*, 1♀, 1♂, 16.VI.1993.

***Chirothrips kurdistanus* zur Strassen**

Material: Kemalpaşa, 200 m, *Echinochloa crus-galli*, 7♀♀, herb, 1♂, 17.VI.1993-Uşak, 800 m, herb, 1♀, 18.VI.1993-Köyceğiz, *Triticum aestivum*, 1♀, 01.V.1995.

***Chirothrips manicatus* Haliday**

Material: Buharkent, 150 m, *Chenopodium* sp., 1♀, 15.VI.1993-Kuyucak, Horsunlu, 150 m, *Echinochloa crus-galli*, 1♀, *Olea europaea*, 1♀, 15.VI.1993-Karacasu, Esençay, forest, 300 m, *Pinus* sp., 1♀, 15.VI.1993-Söke, 50 m, *Crataegus* sp., 2♀♀, *Pyrus elaeagnifolia*, 1♀, *Agrostis palustris*, 19♀♀, 16.VI.1993-Selçuk, 50 m, *Spartium junceum*, 1♀, *Solanum melongena*, 1♀, 16.VI.1993-Kemalpaşa, 200 m, *Malva* sp., 1♀, herb, 2♀♀, 17.VI.1993-Muğla, 700 m, *Amygdalus communis*, 1♀, 01.V.1995-Çivril, 900 m, *Triticum aestivum*, 1♀, 04.V.1995.

***Collembolothrips mediterraneus* Priesner**

Material: Çal, 940 m, cereal, 1♀; 890 m, herb, 1♀, 04.V.1995-Çivril, Yassihöyük, 870 m, *Medicago sativa*, 1♀, 04.V.1995-Dinar, 900 m, cereal, 1♀, cereal, 10♀♀, 04.V.1995.

***Dendrothrips saltatrix* Uzel**

Material: Milas, 100 m, *Triticum aestivum*, 1♂; Selimiye, 150 m, Fabaceae, 1♀; Güllük, 100 m, *Olea europaea*, 1♀, 02.V.1995-Kuşadası, Umbellifereae, 1♀, 02.V.1995.

***Drepanothrips reuteri* Uzel**

Material: Turgutlu, 100 m, *Vitis vinifera*, 1♀, 17.VI.1993-Salihli, nursery, 50 m, *Vitis vinifera*, 2♀♀, 17.VI.1993-Çivril, Işıklı Lake, 900 m, *Quercus* sp., 1♀, 04.V.1995.

***Eremiothrips taghizadehi* (zur Strassen)**

Material: Buharkent, 150 m, *Chenopodium* sp., 9♀♀, 1♂, 15.VI.1993-Ödemiş, 100 m, *Chenopodium* sp., 1♀, 16.VI.1993.

***Frankliniella intonsa* (Trybom)**

Material: Sarayköy, 200 m, *Punica granatum*, 1♀, 15.VI.1993-Ödemiş, 100 m, grass, 1♀, 16.VI.1993-Fethiye, Kemer Junction, 200 m, herb, 1♀, 1♂; Kadıköy, 200 m, *Styrax* sp., 1♀; herb, 2♀♀; Güneşli, 200 m, *Citrus sinensis*, 3♀♀; *Rosa* sp., 7♀♀, 30.IV.1995.

***Frankliniella pallida* (Uzel)**

Material: Uşak, 800 m, *Salvia* sp., 1♀, 18.VI.1993.

***Frankliniella tenuicornis* (Uzel)**

Material: Tavas, Kızılcabölük, 900 m, grass, 1♀, 14.VI.1993-Sarayköy, 200 m, *Avena sativa*, 10♀♀, *Convolvulus* sp., 1♀, *Zea mays*, 9♀♀, *Eucalyptus* sp., 1♀, 15.VI.1993-Buharkent, 150 m, *Zea mays*, 6♀♀, *Vitis vinifera*, 1♀, 15.VI.1993-Kuyucak, Horsunlu, 150 m, *Echinochloa crus-galli*, 1♂, 15.VI.1993-Ödemiş, 100 m, *Zea mays*, 3♀♀, *Olea europaea*, 2♀♀, 16.VI.1993-Turgutlu, 100 m, *Vitis vinifera*, 2♀♀, grass, 3♀♀, 17.VI.1993-Salihli, Marmara Lake, 50 m, *Juncus* sp., 11♀♀, 4♂♂, *Carthamus* sp., 3♀♀, *Typha* sp., 1♀; nursery, 50 m, *Prunus domestica*, 2♀♀, *Ligustrum* sp., 1♀, *Tripleurospermum* sp., 1♀, 17.VI.1993-Fethiye, Güneşli, 200 m, grass, 1♀, 30.IV.1995.

***Isoneurothrips australis* Bagnall**

Material: Fethiye, Kargı, 150 m, *Eucalyptus* sp., 1♀, 3♂♂, 01.IV.1995-Ula, Gökova, *Eucalyptus* sp., 3♀♀, 01.V.1995-Söke, *Eucalyptus* sp., 1♂, *Sinapis* sp., 2♀♀, 02.V.1995.

Distribution in Turkey: Antalya, Adana, Mersin.

Kakothrips robustus (Uzel)

Material: Çavdır, 1000 m, *Coronilla varia*, 2♀♀, 2♂♂, *Vicia sativa*, 4♀♀, 14.VI.1993.

Limothrips angulicornis Jablonowski

Material: Acıpayam, 800 m, *Bromus* sp., 1♀, 14.VI.1993-Ödemiş, 100 m, *Populus* sp., 1♀, grass, 5♀♀, 1♂, 16.VI.1993-Salihli, nursery, 50 m, *Pinus* sp., 2♀♀, 17.VI.1993-Uşak, 900 m, *Avena sativa*, 3♀♀, 5♂♂, *Triticum aestivum*, 1♂, 18.VI.1993.

Limothrips cerealium Haliday

Material: Germencik, Ortaklar, forest, 120 m, *Salix* sp., 1♀, 16.VI.1993-Selçuk, 50 m, *Zea mays*, 1♀, 16.VI.1993-Köyceğiz, *Triticum aestivum*, 1♀, 1♂, 01.V.1995-Ula, Gökova, *Avena sativa*, 3♀, 01.V.1995-Kuşadası, *Triticum aestivum*, 1♀, 02.V.1995.

Limothrips denticornis Haliday

Material: Tavas, Kızılcabölük, 900 m, *Hordeum vulgare*, 3♂♂, 14.VI.1993-Salihli, nursery, 50 m, *Olea europaea*, 1♀, *Pinus* sp., 1♀, 17.VI.1993-Kula, 420 m, *Malus communis*, 1♀, 17.VI.1993-Selendi, 650 m, *Avena sativa*, 1♂, 17.VI.1993-Uşak, 800 m, *Salvia* sp., 1♀, 18.VI.1993-Çivril, 800 m, *Malus communis*, 6♀♀, 18.VI.1993; 900 m, *Triticum aestivum*, 2♀♀, 04.V.1995-Çal, 900 m, cereal, 1♀; Süller, 920 m, cereal, 2♀♀, 04.V.1995-Dinar, 900 m, cereal, 1♀, 04.V.1995.

Limothrips transcausicus Sawenko

Material: Kiraz, Sarıkaya, 400 m, *Secale cereale*, 1♀, 03.V.1995.

Mycterothrips albidicornis (Knechtel)

Material: Tavas, Kızılcabölük, 900 m, *Amygdalus communis*, 2♀♀, 2♂♂, 14.VI.1993-Bozdoğan, 150 m, *Amygdalus communis*, 1♀, *Vitis vinifera*, 1♀, 15.VI.1993-Turgutlu, 100 m, *Vitis vinifera*, 1♀, *Pyrus elaeagnifolia*, 1♀, *Convolvulus* sp., 1♀, 17.VI.1993-Fethiye, forest, 1000 m, woody plant, 1♂, 30.IV.1995.

Mycterothrips salicis (O.M. Reuter)

Material: Çavdır, 1000 m, *Populus* sp., 4♀♀, 14.VI.1993.

Distribution in Turkey: Antalya, Manisa, Ankara.

Neohydatothrips gracilicornis (Williams)

Material: Çavdır, 1000 m, *Vicia sativa*, 1♂, 14.VI.1993-Acıpayam, 800 m, *Latyrus sativus*, 12♀♀, 12♂♂, herb, 2♀♀, 14.VI.1993-Serinhisar, 900 m, *Vitis vinifera*, 1♀, 14.VI.1993-Tavas, Kızılcabölük, 900 m, grass, 1♂, 14.VI.1993-Kemalpaşa, 200 m, herb, 1♂, 17.VI.1993-Turgutlu, 100 m, *Vitis vinifera*, 1♀, 17.VI.1993-Kula, 420 m, *Verbascum* sp., 1♂, 17.VI.1993-Fethiye, Saklıkent, 200 m, *Olea europaea*, 1♀, *Melilotus* sp., 2♂♂, 30.IV.1995; Kargı, 150 m, *Citrus aurantium*, 1♂, *Vicia sativa*, 1♀, 01.V.1995-Sarıgöl, 400 m, *Vicia sativa*, 1♂, 03.V.1995-Çal, 840 m, *Medicago sativa*, 1♀, 04.V.1995-Çivril, 800 m, *Malus communis*, 1♂; Gümüşsu, 900 m, *Hordeum vulgare*, 1♀, 04.V.1995.

Odontothrips meridionalis Priesner

Material: Söke, 50 m, *Spartium junceum*, 14♀♀, 2♂♂, *Althaea* sp., 3♀♀, 16.VI.1993-Selçuk, 50 m, *Spartium junceum*, 8♀♀, 2♂♂, *Zea mays*, 1♂, 16.VI.1993-Fethiye, 450 m, *Spartium junceum*, 1♀, Kargı, 150 m, *Genista* sp., 7♀♀, 01.V.1995; Saklıkent, 200 m, *Salix* sp., 1♀, 30.IV.1995-Milas, Selimiye, 150 m, *Myrtus communis*, 1♀, 02.V.1995-Söke, *Spartium junceum*, 6♀♀, 4♂♂, 02.V.1995-Kuşadası, *Spartium junceum*, 4♀♀, 02.V.1995-Kemalpaşa, *Cercis siliquastrum*, 1♀, 03.V.1995.

Distribution in Turkey: Antalya.

Oxythrips ajugae Uzel

Material: Tavas, Yahşiler, 1030 m, *Pinus* sp., 1♀, 14.VI.1993-Bozdoğan, 150 m, *Vitis vinifera*, 1♀, 15.VI.1993-Fethiye, 1000 m, *Pinus brutia*, 15♀♀, *Euphorbia* sp., 1♀; forest, 1000 m, *Bellis perennis*, 1♀, 30.IV.1995-Muğla, 700 m, *Cupressus* sp., 3♀♀, 01.V.1995-Yatağan, 740 m, *Crataegus* sp., 2♀♀, 01.V.1995-Milas, 100 m, *Citrus sinensis*, 1♀, 02.V.1995-Kemalpaşa, *Spartium junceum*, 1♀, 03.V.1995-Çal, 700 m, *Pinus* sp., 1♀; 890 m, *Pinus* sp., 1♀, 04.V.1995.

Oxythrips halidayi Bagnall

Material: Çal, 900 m, *Quercus* sp., 1♀, 04.V.1995.

Distribution in Turkey: New record for Turkey.
World: Crimean peninsula, England, France, Germany. **Hosts:** *Fraxinus excelsior*, *Ulmus laevis* (zur Strassen, 2003).

Oxythrips priesneri Pelikan

Material: Çal, 890 m, *Pinus* sp., 1♀, 04.V.1995.

Distribution in Turkey: Antalya.

Pezothrips kellyanus (Bagnall)

Material: Fethiye, Kargı, 150 m, *Olea europaea*, 1♀, 01.V.1995.

Distribution in Turkey: Antalya, Mersin, Hatay, Aydın.

Prosopothrips nigriceps Bagnall

Material: Milas, Selimiye, 150 m, *Olea europaea*, 1♂, 02.V.1995.

Distribution in Turkey: New record for Turkey. **World:** Egypt, Israel, Cyprus, Sardinia, Sicily, southern France, southern Spain, in coastal areas. **Hosts:** Sand grasses (e.g., *Lygeum spartum*, *Poa annua*) and low-growing vegetation (zur Strassen, 2003).

Rubiothrips vitis (Priesner)

Material: Serinhisar, 900 m, *Vitis vinifera*, 2♀♀, 14.VI.1993-Kula, 420 m, *Vitis vinifera*, 1♀, 17.VI.1993.

Distribution in Turkey: Antalya, Aydın, İzmir, Manisa.

Rubiothrips validus (Karny)

Material: Uşak, 800 m, herb, 3♀♀, 1♂, 18.VI.1993.

Distribution in Turkey: First record for Turkey. **World:** Scotland, Sweden, Spain, Poland, Czech Republic, Germany, Austria, Hungary, Romania, Russia, Georgia, thermophile. **Hosts:** *Galium* spp. (zur Strassen, 2003).

Scolothrips longicornis Priesner

Material: Bayındır, 50 m, *Solanum melongena*, 1♀, 16.VI.1993.

Sitothrips arabicus Priesner

Material: Çavdır, 1000 m, *Triticum aestivum*, 4♀♀, *Avena sativa*, 8♀♀; 14.VI.1993-Acıpayam, 800 m, *Bromus* sp., 1♀, 14.VI.1993-Serinhisar, 900 m, *Crataegus* sp., 1♀, 14.VI.1993-Tavas, Kızılcabölük, 900 m, grass, 2♀♀, *Euphorbia* sp., 1♂, 14.VI.1993-Selendi, 650 m, *Avena sativa*, 1♀, 17.VI.1993-Uşak, 900 m, *Triticum aestivum*, 2♀♀, *Hordeum vulgare*, 1♀, 18.VI.1993-Sivashlı, 900 m, *Triticum aestivum*, 1♀, 18.VI.1993.

Distribution in Turkey: Antalya, Mersin, Kahramanmaraş, Kilis, Ankara, Çankırı, Konya, Kayseri, Nevşehir, Sivas, Yozgat.

Stenothrips graminum Uzel

Material: Çavdır, 1000 m, *Triticum aestivum*, 4♀♀, 2♂♂, *Quercus* sp., 1♀, *Quercus* sp., 1♀, herb, 1♀, *Avena sativa*, 1♀, 1♂; 14.VI.1993-Selendi, 650 m, *Avena sativa*, 1♀, 17.VI.1993-Uşak, 900 m, *Avena sativa*, 7♀♀, 18.VI.1993-Muğla, 700 m, cereal, 1♀, 2♂♂, 01.V.1995-Ödemiş, *Avena sativa*, 1♀, 03.V.1995.

Distribution in Turkey: Antalya, Mersin, İstanbul, Sakarya, Ankara, Konya.

Taeniothrips inconsequens (Uzel)

Material: Muğla, 700 m, *Arbutus* sp., 2♀♀, 01.V.1995-Çal, 840 m, *Prunus avium*, 2♀♀, 04.V.1995-Çivril, Işıklı Lake, 900 m, *Crataegus* sp., 2♀♀; Gümüşsu, 900 m, *Prunus avium*, 2♂♂, 04.V.1995.

Tenothrips anatolicus (Priesner)

Material: Acıpayam, 800 m, herb, 1♀, 14.VI.1993-Karacasu, Esençay, forest, 300 m, *Thymbra spicata*, 3♀♀, 9♂♂, herb, 1♀, 5♂♂, *Solidago* sp., 2♀♀, 7♂♂, 15.VI.1993-Kemalpaşa, 200 m, grass, 1♀, 17.VI.1993-Çavdır, Söğüt, 1440 m, *Lamium* sp., 3♀♀, 30.IV.1995.

Tenothrips discolor (Karny)

Material: Buharkent, 150 m, *Chenopodium* sp., 3♀♀, *Olea europaea*, 1♀, 15.VI.1993-Kuyucak, Horsunlu, 150 m, herb, 1♀, 15.VI.1993-Karacasu, Esençay, forest, 300 m, *Pinus* sp., 1♀, *Solidago* sp., 21♀♀, 6♂♂, 15.VI.1993-Ödemiş, 100 m, *Anthemis* sp., 3♀♀, 16.VI.1993-Salihli, nursery, 50 m, *Tripleurospermum* sp., 3♀♀, 17.VI.1993.

Tenothrips frici (Uzel)

Material: Sarayköy, 200 m, *Verbascum* sp., 3♂♂, *Glaucium flavum*, 4♀♀, 9♂♂, 15.VI.1993-Buharkent, 150 m, *Cynodon dactylon*, 1♀, 15.VI.1993-Kuyucak, Horsunlu, 150 m, *Echinochloa crus-galli*, 1♀, herb, 1♀, 15.VI.1993-Çine, Hallaçlar, 150 m, *Verbascum* sp., 2♀♀, 15.VI.1993-Söke, 50 m, herb, 7♀♀, 6♂♂, *Spartium junceum*, 1♀, *Amygdalus communis*, 1♀, 16.VI.1993-Germencik, Ortaklar, forest, 120 m, *Carthamus* sp., 2♀♀, 4♂♂, 16.VI.1993-Ödemiş, 100 m, *Echinochloa crus-galli*, 1♂, 16.VI.1993-Bayındır,

50 m, *Verbascum* sp., 2♀♀, 2♂♂, *Olea europaea*, 1♀, *Verbascum* sp., 1♂, 16.VI.1993-Kemalpaşa, 200 m, *Vitex agnus-castus*, 1♀, *Cichorium intybus*, 3♀♀, 1♂, 17.VI.1993-Turgutlu, 100 m, *Convolvulus* sp., 1♀, 17.VI.1993-Salihli, Marmara Lake, 50 m, *Carthamus* sp., 3♀♀, 1♂; nursery, 50 m, *Sinapis* sp., 1♀, 17.VI.1993-Kula, 420 m, *Verbascum* sp., 3♀♀, 3♂♂, *Althaea* sp., 4♀♀, 2♂♂, *Prunus persica*, 1♀, *Pyrus elaeagnifolia*, 1♀, 17.VI.1993-Uşak, 900 m, *Scorzonera* sp., 2♂♂, 18.VI.1993-Çavdır, Söğüt, 1440 m, herb, 8♀♀, 30.IV.1995-Çivril, Gümüşsu, 900 m, *Euphorbia* sp., 1♀, 04.V.1995.

Thrips angusticeps Uzel

Material: Uşak, 900 m, *Triticum aestivum*, 1♀, *Verbascum* sp., 1♀, *Vitis vinifera*, 1♀, *Convolvulus* sp., 5♀♀, 2♂♂, 18.VI.1993-Fethiye, Kemer Junction, 200 m, *Avena sativa*, 2♀♀, *Pisum sativum*, 10♀♀, 1♂, *Bromus* sp., 5♀♀, 1♂, herb, 1♀, 30.IV.1995; 450 m, *Quercus* sp., 10♀♀; Kargı, 150 m, *Citrus aurantium*, 2♀♀, *Citrus sinensis*, 9♀♀, *Vicia sativa*, 7♀♀, 7♂♂, *Solanum melongena*, 2♀♀, *Olea europaea*, 1♀, *Triticum aestivum*, 3♀♀, 1♂, 01.V.1995; Saklıkent, 200 m, *Typha* sp., 1♀; Kadıköy, 200 m, *Triticum aestivum*, 4♀♀, 2♂♂, herb, 9♀♀, 6♂♂; Güneşli, 200 m, *Citrus sinensis*, 8♀♀, 2♂♂, grass, 4♀♀, 4♂♂, 30.IV.1995-Köyceğiz, herb, 2♂♂, *Vicia sativa*, 3♀♀, 01.V.1995-Muğla, 700 m, *Pisum sativum*, 4♀♀, 5♂♂, Asteraceae, 1♀, 1♂, *Vicia faba*, 2♀♀, cereal, 1♂, *Prunus avium*, 1♀, *Fragaria ananasa*, 1♀, 1♂, *Dianthus* sp., 3♀♀, *Brassica oleraceae*, 7♀♀, 1♂, *Triticum aestivum*, 2♂♂, *Trifolium* sp., 1♂, *Vicia sativa*, 1♂, herb, 2♀♀, 01.V.1995-Yatağan, 740 m, *Triticum aestivum*, 1♀, 5♂♂, 01.V.1995-Milas, 100 m, *Morus alba*, 2♀♀, *Sinapis* sp., 5♀♀, 6♂♂, *Raphanus* sp., 5♀♀, 2♂♂, *Triticum aestivum*, 1♀, 2♂♂; Güllük, *Avena sativa*, 5♀♀, 2♂♂, *Sinapis* sp., 9♀♀, 5♂♂, *Vicia sativa*, 2♀♀, *Olea europaea*, 1♀, *Triticum aestivum*, 5♀♀, 8♂♂; Bafa, 100 m, *Taraxacum* sp., 3♀♀, 3♂♂, 02.V.1995-Söke, *Prunus domestica*, 1♀, 02.V.1995-Kuşadası, *Triticum aestivum*, 1♀, *Sinapis* sp., 4♀♀, 3♂♂, *Vicia sativa*, 4♀♀, 02.V.1995-Seferihisar, *Citrus reticulata*, 6♀♀, 2♂♂, cereal, 4♀♀, 1♂, 02.V.1995-Kemalpaşa, *Sinapis* sp., 6♀♀, *Raphanus* sp., 3♀♀, 1♂, Asteraceae, 1♀, *Triticum aestivum*, 4♀♀, 03.V.1995-Tire, *Carthamus* sp., 2♀♀, 03.V.1995-Ödemiş, *Pisum sativum*, 6♀♀, *Avena sativa*, 1♀, 1♂, *Sinapis* sp., 10♀♀, 1♂, *Triticum aestivum*, 1♀, 03.V.1995-Kiraz,

Sarıkaya, 700 m, *Triticum aestivum*, 1♂, 03.V.1995-Sarıgöl, 400 m, *Vitis vinifera*, 1♀, *Triticum aestivum*, 3♀♀, 03.V.1995-Çal, 940 m, herb, 4♀♀; 840 m, *Malus communis*, 1♀, cereal, 1♂; 890 m, herb, 1♂; 04.V.1995-Çivril, 900 m, Asteraceae, 1♂; Yassihöyük, 870 m, *Medicago sativa*, 2♀♀, 1♂, *Triticum aestivum*, 5♀♀, 3♂♂, *Malus communis*, 1♀, *Euphorbia* sp., 5♀♀; Işıklı Lake, 900 m, *Crataegus* sp., 1♀, 04.V.1995-Dinar, 900 m, cereal, 5♀♀, 2♂♂, *Raphanus* sp., 1♂, 04.V.1995.

Thrips atratus Haliday

Material: Selendi, 650 m, *Quercus* sp., 1♀, 17.VI.1993-Sivaslı, 900 m, *Lamium* sp., 6♀♀, 1♂, 18.VI.1993-Köyceğiz, *Triticum aestivum*, 1♀, 01.V.1995.

Thrips dubius Priesner

Material: Tavas, Kızılcabölük, 900 m, *Euphorbia* sp., 5♀♀, 14.VI.1993-Çivril, Yassihöyük, 870 m, *Euphorbia* sp., 1♀, 04.V.1995.

Thrips fedorovi (Priesner)

Material: Uşak, 800 m, *Salvia* sp., 4♀♀, 18.VI.1993.

Thrips fuscipennis Haliday

Material: Çavdır, Söğüt, 1440 m, Fabaceae, 3♀♀, 30.IV.1995.

Distribution in Turkey: İzmir, Yalova, Ordu, Samsun.

Thrips italicus (Bagnall)

Material: Söke, 50 m, *Spartium junceum*, 1♀, *Althaea* sp., 1♂, *Verbascum* sp., 1♀, 3♂♂, *Olea europaea*, 1♂, 16.VI.1993-Kula, 420 m, *Althaea* sp., 1♂, 17.VI.1993-Çavdır, Söğüt, 1440 m, *Prunus avium*, 4♀♀, 30.IV.1995-Fethiye, 1000 m, shrub, 2♀♀, 1♂, *Euphorbia* sp., 1♀, 1♂; forest, 1000 m, *Daphne* sp., 4♀♀, 8♂♂, *Pyrus elaeagnifolia*, 1♀, 30.IV.1995; 450 m, *Styrax* sp., 1♀, 01.V.1995; Saklıkent, 200 m, *Eucalyptus* sp., 1♂, *Citrus reticulata*, 5♂♂, *Platanus orientalis*, 1♂, *Acacia cynophylla*, 2♀♀, 1♂; Kadıköy, 200 m, *Styrax* sp., 1♀, 30.IV.1995; Kargı, 150 m, *Citrus sinensis*, 1♀, 01.V.1995-Muğla, 700 m, herb, 3♀♀, 2♂♂, 01.V.1995-Yatağan, 740 m, *Crataegus* sp., 1♀, 5♂♂, *Asphodelus* sp., 1♀, 5♂♂, 01.V.1995-Kuşadası, Umbellifereae, 1♀, 02.V.1995-Sarıgöl, 500 m, *Acacia* sp., 3♀♀, *Crataegus* sp., 3♀♀, 2♂♂,

03.V.1995-Buldan, 550 m, *Crataegus* sp., 2♀♀, 1♂♂, *Genista* sp., 4♀♀, 4♂♂, 03.V.1995-Çal, 640 m, *Genista* sp., 3♀♀, 1♂♂; 900 m, *Cardaria draba*, 1♀; 940 m, *Pyrus elaeagnifolia*, 1♀; 840 m, *Medicago sativa*, 1♀, 04.V.1995-Bekilli, 920 m, herb, 1♀, 3♂♂, 04.V.1995-Çivril, *Euphorbia* sp., 4♀♀; Işıklı Lake, 900 m, *Euphorbia* sp., 1♀, 4♂♂; Gümüşsu, 900 m, *Cardaria draba*, 1♀, 04.V.1995-Dinar, 900 m, *Raphanus* sp., 1♂♂, 04.V.1995.

Thrips major Uzel

Material: Çavdır, 1000 m, *Coronilla varia*, 2♀♀, 1♂♂; *Elaeagnus* sp., 1♀, 14.VI.1993-Tavas, Yahşiler, 1030 m, *Pyrus elaeagnifolia*, 1♀, 14.VI.1993-Söke, 50 m, *Eucalyptus* sp., 1♀, 16.VI.1993-Germencik, Ortaklar, forest, 120 m, *Nerium oleander*, 2♀♀; *Citrus reticulata*, 1♀, 16.VI.1993-Kula, 420 m, *Prunus armeniaca*, 1♀; *Crataegus* sp., 1♀, 17.VI.1993-Çivril, Gümüşsu, 800 m, *Berberis* sp., 1♀, 18.VI.1993-Dinar, 820 m, *Berberis* sp., 5♀♀, 18.VI.1993-Fethiye, 450 m, *Spartium junceum*, 3♀♀, *Quercus* sp., 1♀, *Styrax* sp., 6♀♀, 1♂♂, 01.V.1995; Kemer Junction, 200 m, *Citrus sinensis*, 1♀, *Citrus reticulata*, 1♀; Saklıkent, 200 m, herb, 2♀♀, *Citrus reticulata*, 1♀, 6♂♂; Kadıköy, 200 m, *Styrax* sp., 1♀, 5♂♂, *Prunus avium*, 2♀♀; Güneşli, 200 m, *Citrus sinensis*, 1♀, 1♂♂, 30.IV.1995; Ölüdeniz, *Acacia cyanophylla*, 1♀; Kargı, 150 m, *Citrus aurantium*, 2♀♀, *Citrus sinensis*, 2♀♀, *Olea europaea*, 9♀♀, 01.V.1995-Köyceğiz, *Citrus sinensis*, 5♀♀, 2♂♂, 01.V.1995-Muğla, 700 m, *Prunus avium*, 4♀♀, 01.V.1995-Milas, 100 m, *Rosa* sp., 2♀♀, 1♂♂; Selimiye, 150 m, *Styrax* sp., 2♀♀; Güllük, 100 m, *Olea europaea*, 1♀, 02.V.1995-Söke, *Spartium junceum*, 2♀♀, 02.V.1995-Menderes, Gümüldür, *Citrus reticulata*, 1♀, 02.V.1995-Kemalpaşa, *Avena sativa*, 1♀, 03.V.1995.

Thrips meridionalis (Priesner)

Material: Çavdır, 1000 m, *Coronilla varia*, 1♀, 2♂♂, *Elaeagnus* sp., 2♀♀, 2♂♂, *Vicia sativa*, 2♀♀, 14.VI.1993; Söğüt, 1440 m, *Prunus domestica*, 1♀, 30.IV.1995-Acıpayam, 800 m, *Rosa canina*, 1♀♀, 4♂♂, herb, 4♀♀, 1♂♂, 14.VI.1993-Serinhisar, 900 m, *Amygdalus communis*, 1♀, *Vitis vinifera*, 3♀♀, 1♂♂, herb, 6♀♀, 14.VI.1993-Tavas, Kızılcabölük, 900 m, *Avena sativa*, 1♂♂, herb, 9♀♀, 18♂♂, *Euphorbia* sp., 1♀, 5♂♂, 14.VI.1993-Tavas, Yahşiler, 1030 m, *Quercus* sp., 1♀, *Pinus* sp., 1♀, 14.VI.1993-Sarayköy, 200 m, *Verbascum* sp., 1♀, 15.VI.1993-Kuyucak, Horsunlu,

150 m, *Citrus reticulata*, 2♀♀, 15.VI.1993-Söke, 50 m, *Salix* sp., 1♀, *Verbascum* sp., 1♀, *Cystus* sp., 1♀, 1♂♂, 16.VI.1993-Kemalpaşa, 200 m, *Olea europaea*, 1♀, *Nerium oleander*, 1♀, *Althaea* sp., 1♀, 17.VI.1993-Turgutlu, 100 m, *Convolvulus* sp., 1♀, 17.VI.1993-Kula, 420 m, *Verbascum* sp., 6♀♀, 1♂♂, *Althaea* sp., 4♀♀, 3♂♂, 17.VI.1993-Selendi, 650 m, shrub, 12♀♀, 8♂♂, *Quercus* sp., 7♀♀, 2♂♂, *Onobrychis* sp., 6♀♀, 3♂♂, 17.VI.1993-Uşak, 900 m, *Spirea* sp., 13♀♀, 3♂♂, *Tagetes* sp., 4♂♂, *Verbascum* sp., 6♀♀, 3♂♂, *Vitis vinifera*, 1♂♂, *Convolvulus* sp., 2♀♀, 800 m, *Salvia* sp., 1♀, 18.VI.1993-Sivaslı, 900 m, *Papaver somniferum*, 1♀, 18.VI.1993-Fethiye, 1000 m, shrub, 4♀♀, 30.IV.1995; 450 m, *Spartium junceum*, 1♀, 01.V.1995; forest, 1000 m, *Bellis perennis*, 1♀, 2♂♂; Kemer Junction, 200 m, *Citrus sinensis*, 7♀♀, 2♂♂, *Citrus reticulata*, 1♀, *Juncus* sp., 1♀; Saklıkent, 200 m, herb, 1♀; Kadıköy, 200 m, *Styrax* sp., 4♀♀, 9♂♂; Güneşli, 200 m, *Citrus sinensis*, 2♀♀, 30.IV.1995; Kargı, 150 m, *Citrus aurantium*, 1♂♂, *Olea europaea*, 1♀; Köyceğiz, *Citrus sinensis*, 1♀, 01.V.1995-Yatağan, 740 m, *Asphodelus* sp., 1♀, 01.V.1995-Milas, 100 m, *Sinapis* sp., 2♂♂, 02.V.1995-Kemalpaşa, *Sinapis* sp., 2♀♀, *Cercis siliquastrum*, 1♂♂, *Spartium junceum*, 4♀♀, *Cercis siliquastrum*, 1♀, 03.V.1995-Ödemiş, *Citrus* sp., 1♀, 3♂♂, 03.V.1995-Kiraz, Sarıkaya, 700 m, *Crataegus* sp., 5♀♀, 03.V.1995-Sarigöl, 400 m, *Vicia sativa*, 1♀, *Acacia* sp., 1♀, 03.V.1995-Buldan, 400 m, *Genista* sp., 1♀, 03.V.1995-Denizli, 300 m, *Raphanus* sp., 6♀♀, *Sinapis* sp., 9♀♀, 04.V.1995-Çal, 640 m, *Malus communis*, 2♀♀, 1♂♂, *Morus alba*, 1♀; 700 m, *Pinus* sp., 3♀♀, 3♂♂, *Cardaria draba*, 12♀♀; 940 m, *Prunus avium*, 6♀♀, herb, 1♀; 840 m, *Malus communis*, 10♀♀, *Prunus avium*, 4♀♀; 890 m, *Crataegus* sp., 2♀♀, 3♂♂, *Amygdalus communis*, 1♀, 04.V.1995-Çivril, 800 m, *Papaver somniferum*, 2♀♀, 11♂♂, *Convolvulus* sp., 3♀♀, 2♂♂, *Malus communis*, 2♀♀, *Prunus armeniaca*, 2♀♀, herb, 1♀, *Vitis vinifera*, 1♀, 1♂♂, *Euphorbia* sp., 1♀, 18.VI.1993; 900 m, *Malus communis*, 3♀♀, *Cydonia vulgaris*, 10♀♀, *Boreava orientalis*, 10♀♀, 2♂♂, 04.V.1995; Beydilli, Işıklı Lake, 800 m, *Verbascum* sp., 2♀♀, 1♂♂, 18.VI.1993; Işıklı Lake, 900 m, *Crataegus* sp., 11♀♀, 9♂♂, 04.V.1995; Yassıhöyük, 870 m, *Prunus avium*, 1♀, *Malus communis*, 2♀♀, 04.V.1995; Gümüşsu, 800 m, *Berberis* sp., 1♂♂, 18.VI.1993; 900 m, *Malus communis*, 9♀♀, 1♂♂, *Prunus avium*, 5♀♀, 2♂♂, *Cardaria draba*, 5♀♀, *Salix* sp., 5♀♀, *Amygdalus*

communis, 8♀♀, 5♂♂, *Malus communis*, 2♀♀, *Genista* sp., 3♀♀, 4♂♂, *Sinapis* sp., 11♀♀, 04.V.1995-Dinar, 820 m, *Berberis* sp., 3♀♀, 4♂♂, *Peganum harmala*, 1♂, 18.VI.1993; 900 m, *Pyrus elaeagnifolia*, 3♀♀, *Raphanus* sp., 10♀♀, *Prunus avium*, 3♀♀, 1♂, *Sinapis* sp., 10♀♀, 1♂, *Malus communis*, 8♀♀, 1♂, 04.V.1995.

Thrips minutissimus Linnaeus

Material: Çavdır, Söğüt, 1440 m, *Prunus avium*, 1♀, 30.IV.1995-Fethiye, 450 m, *Pyrus elaeagnifolia*, 1♀, 01.V.1995; forest, 1000 m, *Pyrus elaeagnifolia*, 1♂; Kemer Junction, 200 m, *Pisum sativum*, 1♀, 1♂; Saklıkent, 200 m, *Pistacia* sp., 5♀♀, 8♂♂, 30.IV.1995-Muğla, 700 m, *Prunus avium*, 1♀, 01.V.1995-Milas, Bafa, 100 m, *Quercus* sp., 1♂, 02.V.1995-Kemalpaşa, *Quercus* sp., 2♀♀, 03.V.1995-Sarıgöl, 500 m, *Quercus* sp., 6♀♀, 03.V.1995-Çal, 640 m, *Triticum aestivum*, 1♀, *Quercus* sp., 1♀; 900 m, *Quercus* sp., 2♀♀; 890 m, *Quercus* sp., 3♀♀, 04.V.1995-Çivril, Işıklı Lake, 900 m, *Quercus* sp., 14♀♀, 04.V.1995.

Thrips physapus Linnaeus

Material: Çavdır, 1000 m, *Coronilla varia*, 1♀, 1♂, 14.VI.1993-Acıpayam, 800 m, *Carthamus* sp., 6♂♂; *Iris* sp., 1♂, 14.VI.1993-Sarayköy, 200 m, *Carthamus* sp., 1♀, 15.VI.1993-Turgutlu, 100 m, *Convolvulus* sp., 1♀, 17.VI.1993.

Thrips tabaci Lindeman

Material: Çavdır, 1000 m, *Rumex* sp., 6♀♀, *Vicia sativa*, 1♀, 14.VI.1993-Acıpayam, 800 m, *Avena sativa*, 1♀, 14.VI.1993-Serinhisar, 900 m, *Vitis vinifera*, 1♀, 14.VI.1993-Sarayköy, 200 m, *Avena sativa*, 4♀♀, *Echinochloa crus-galli*, 4♀♀, *Zea mays*, 1♀, *Verbascum* sp., 7♀♀, *Eucalyptus* sp., 2♀♀, 15.VI.1993-Buharkent, 150 m, *Chenopodium* sp., 1♀, 15.VI.1993-Kuyucak, Horsunlu, 150 m, *Olea europaea*, 1♀, herb, 3♀♀, 15.VI.1993-Karacasu, Esençay, forest, 300 m, *Crataegus* sp., 1♀, 15.VI.1993-Bozdoğan, 150 m, *Amygdalus communis*, 1♀, 15.VI.1993-Yenipazar, Donduran, 100 m, *Arachis hypogaea*, 3♀♀, 15.VI.1993-Çine, Hallaçlar, 150 m, *Morus alba*, 1♀, *Vitex agnus-castus*, 12♀♀, 15.VI.1993-Söke, 50 m, *Verbascum* sp., 8♀♀, *Vitex agnus-castus*, 2♀♀, *Althaea* sp., 1♀, *Amygdalus communis*, 1♀, *Verbascum* sp., 2♀♀, 16.VI.1993; Asteraceae, 2♀♀, herb, 3♀♀, *Morus alba*, 1♀, 02.V.1995-Ödemiş, 100 m, *Anthemis* sp., 3♀♀,

Chenopodium sp., 2♀♀, 16.VI.1993; Asteraceae, 4♀♀, *Carthamus* sp., 4♀♀, 03.V.1995-Bayındır, 50 m, *Verbascum* sp., 1♀, *Vitex agnus-castus*, 2♀♀, *Solanum melongena*, 3♀♀, *Zea mays*, 1♀, 16.VI.1993-Kemalpaşa, 200 m, *Vitex agnus-castus*, 1♀, *Anthemis* sp., 2♀♀, 17.VI.1993-Turgutlu, 100 m, *Vitis vinifera*, 1♀, *Convolvulus* sp., 5♀♀, 17.VI.1993-Salihli, Marmara Lake, 50 m, *Carthamus* sp., 1♂; nursery, 50 m, *Pinus* sp., 7♀♀, *Tripleurospermum* sp., 3♀♀, *Datura* sp., 3♀♀, *Sinapis* sp., 5♀♀, 17.VI.1993-Kula, 420 m, *Althaea* sp., 1♀, *Prunus domestica*, 1♀, *Vitis vinifera*, 1♀, 17.VI.1993-Selendi, 650 m, *Avena sativa*, 6♀♀, shrub, 2♀♀, *Quercus* sp., 2♀♀, 17.VI.1993-Uşak, 900 m, *Tagetes* sp., 5♀♀, *Avena sativa*, 3♀♀, *Verbascum* sp., 5♀♀, *Vitis vinifera*, 2♀♀, *Convolvulus* sp., 2♀♀, 800 m, herb, 3♀♀, *Salvia* sp., 2♀♀, 18.VI.1993-Sivaslı, 900 m, *Papaver somniferum*, 1♀, *Triticum aestivum*, 1♀, *Lamium* sp., 1♀, *Quercus* sp., 1♀, 18.VI.1993-Çivril, 800 m, *Amygdalus communis*, 1♀, *Papaver somniferum*, 3♀♀, *Convolvulus* sp., 1♀, *Malus communis*, 1♀, *Euphorbia* sp., 7♀♀, 18.VI.1993; 900 m, *Cydonia vulgaris*, 1♀, *Amygdalus communis*, 1♀, Asteraceae, 1♀, *Boreava orientalis*, 1♀, Yassihöyük, 870 m, *Medicago sativa*, 1♀, *Malus communis*, 2♀♀, 04.V.1995; Gümüştü, 800 m, *Berberis* sp., 3♀♀, 18.VI.1993; 900 m, *Hordeum sativum*, 1♀, *Cardaria draba*, 2♀♀, 04.V.1995-Dinar, 820 m, *Berberis* sp., 1♀, 18.VI.1993-Fethiye, 450 m, *Quercus* sp., 1♀, *Vicia sativa*, 3♀♀; Kargı, *Triticum aestivum*, 1♀, 01.V.1995; Kemer Junction, 200 m, *Pisum sativum*, 4♀♀, herb, 3♀♀, *Malva* sp., 12♀♀, herb, 14♀♀; Saklıkent, 200 m, *Melilotus* sp., 1♀, *Salix* sp., 11♀♀, 30.IV.1995-Ula, Gökova, *Sonchus* sp., 1♀, 01.V.1995-Köyceğiz, herb, 4♀♀; 01.V.1995-Muğla, 700 m, Asteraceae, 4♀♀, *Prunus avium*, 1♀, herb, 1♀, 01.V.1995-Milas, 100 m, *Citrus sinensis*, 2♀♀, 1♂, *Sinapis* sp., 1♀, *Raphanus* sp., 6♀♀, *Triticum aestivum*, 1♀, *Rosa* sp., 1♀; Güllük, *Sinapis* sp., 6♀♀, *Vicia sativa*, 4♀♀; Selimiye, 150 m, *Olea europaea*, 4♀♀; Bafa, 100 m, *Olea europaea*, 1♀, 02.V.1995-Kuşadası, Umbellifereae, 13♀♀, *Sinapis* sp., 1♀, *Vicia sativa*, 1♀, 02.V.1995-Menderes, Özdere, *Citrus reticulata*, 1♀, 02.V.1995-Çal, 900 m, *Cardaria draba*, 4♀♀; 840 m, *Medicago sativa*, 3♀♀; 890 m, *Vitis vinifera*, 1♀, *Crataegus* sp., 1♀, 04.V.1995.

Thrips trehernei Priesner

Material: Uşak, 900 m, *Scorzonera* sp., 11♀♀, 18.VI.1993.

Thrips viminalis Uzel

Material: Çavdır, 1000 m, *Salix* sp., 4♀♀, 1♂, 14.VI.1993-Serinhisar, 900 m, *Vitis vinifera*, 1♀, 14.VI.1993.

Distribution in Turkey: Ankara.

PHLAEOTHIRIPIDAE

Apterygothrips priesneri zur Strassen

Material: Fethiye, 450 m, *Pinus pinea*, 2♀♀, 01.V.1995.

Cephalothrips monilicornis O.M. Reuter

Material: Acıpayam, 800 m, *Juncus* sp., 1♀, 14.VI.1993-Dinar, 820 m, *Juncus* sp., 4♀♀, 18.VI.1993.

Compsothrips albosignatus (O.M. Reuter)

Material: Tavas, Yahşiler, 1030 m, *Pyrus elaeagnifolia*, 3♀, 1♂, 14.VI.1993.

Distribution in Turkey: Antalya, İzmir, Adıyaman.

Haplothrips aculeatus (Fabricius)

Material: Sarayköy, 200 m, *Eucalyptus* sp., 1♀, 15.VI.1993-Buharkent, 150 m, *Cynodon dactylon*, 1♀, 15.VI.1993-Nazilli, 100 m, *Phragmites* sp., 1♀, 15.VI.1993-Ödemiş, 100 m, *Echinocloa crus-galli*, 1♂, 16.VI.1993-Kemalpaşa, 200 m, *Echinocloa crus-galli*, 1♀, 17.VI.1993-Salihli, Marmara Lake, 50 m, *Juncus* sp., 8♀♀, 6♂♂, *Typha* sp., 2♀♀, 1♂; nursery, 50 m, *Ligustrum* sp., 1♂, *Vitis vinifera*, 1♀, *Sinapis* sp., 1♂, 17.VI.1993-Kula, 420 m, *Verbascum* sp., 2♀♀, *Crataegus* sp., 1♂, 17.VI.1993.

Haplothrips andresi Priesner

Material: Tavas, Yahşiler, 1030 m, *Pyrus elaeagnifolia*, 1♀, *Pyrus elaeagnifolia*, 5♀♀, 1♂, *Pinus* sp., 1♀, *Quercus* sp., 3♀♀, 1♂, 14.VI.1993-Germencik, Ortaklar, forest, 120 m, *Nerium oleander*, 1♂, 16.VI.1993-Kula, 420 m, *Crataegus* sp., 1♀, *Prunus persica*, 1♀, *Quercus* sp., 1♀, *Pyrus elaeagnifolia*, 2♀♀, 17.VI.1993-Selendi, 650 m, shrub, 8♀♀, 1♂, 17.VI.1993-Uşak, 900 m, *Vitis vinifera*, 1♀, 18.VI.1993-Sivaslı, 900 m, *Quercus* sp., 1♀, *Quercus* sp., 1♀, 18.VI.1993-Çivril, 800 m, *Malus communis*, 1♀, *Cydonia vulgaris*, 1♀, 18.VI.1993-Fethiye, 450 m, *Pyrus elaeagnifolia*, 1♀, 01.V.1995; forest, 1000 m, *Pyrus elaeagnifolia*, 1♂; Saklıkent,

200 m, *Olea europaea*, 1♀, *Pistacia* sp., 2♀♀, *Acacia cynophylla*, 1♀, 30.IV.1995-Muğla, 700 m, *Quercus* sp., 1♀, 01.V.1995-Çal, 890 m, *Amygdalus communis*, 1♀, 04.V.1995.

Haplothrips anthemidinus Priesner

Material: Çal, 890 m, *Crataegus* sp., 1♀, 04.V.1995.

Distribution in Turkey: Antalya, İzmir.

Haplothrips distinguendus (Uzel)

Material: Sarayköy, 200 m, *Carthamus* sp., 8♀♀, 5♂♂, 15.VI.1993-Söke, 50 m, *Crataegus* sp., 1♂, 16.VI.1993-Fethiye, forest, 1000 m, *Pyrus elaeagnifolia*, 1♂, 30.IV.1995-Fethiye, 450 m, *Styrax* sp., 2♀♀, 4♂♂; Ölüdeniz, *Acacia cyanophylla*, 1♀, herb, 1♀, 01.V.1995-Yatağan, 740 m, *Asphodelus* sp., 1♀, 01.V.1995-Seferihisar, *Citrus reticulata*, 1♀, 02.V.1995-Kemalpaşa, *Cercis siliquastrum*, 2♀♀, 03.V.1995-Kiraz, Sarıkaya, 700 m, *Crataegus* sp., 1♀, 03.V.1995.

Haplothrips flavicinctus (Karny)

Material: Sarayköy, 200 m, *Eucalyptus* sp., 1♀, grass, 8♀♀, 3♂♂, 15.VI.1993-Buharkent, 150 m, *Cynodon dactylon*, 6♀♀, 1♂, 15.VI.1993-Kuyucak, Horsunlu, 150 m, *Citrus reticulata*, 1♀, 15.VI.1993-Ödemiş, 100 m, grass, 4♀♀, 2♂♂, 16.VI.1993-Fethiye, Kemer Junction, 200 m, *Avena sativa*, 2♀♀, 30.IV.1995.

Haplothrips globiceps Bagnall

Material: Sarayköy, 200 m, *Morus alba*, 1♀, 15.VI.1993-Çivril, Gümüşsu, 800 m, *Cornus mas*, 2♀♀, 1♂, 18.VI.1993.

Distribution in Turkey: İzmir, Manisa, Ankara, Adıyaman, Diyarbakır, Mardin.

Haplothrips knechteli Priesner

Material: Bozdoğan, 150 m, *Olea europaea*, 1♂, 15.VI.1993-Söke, 50 m, *Amygdalus communis*, 1♀, 16.VI.1993-Salihli, nursery, 50 m, *Prunus domestica*, 1♀, 17.VI.1993-Kula, 420 m, *Prunus domestica*, 4♀♀, 1♂, *Amygdalus communis*, 1♀, 1♂, *Malus communis*, 1♂, 17.VI.1993-Uşak, 900 m, *Malus communis*, 1♀, 18.VI.1993-Çivril, 800 m, *Vitis vinifera*, 1♂, 18.VI.1993.

Haplothrips reuteri (Karny)

Material: Çavdır, 1000 m, *Medicago* sp., 1♀, *Triticum aestivum*, 1♂, herb, 2♀♀, *Coronilla*

varia, 2♀♀, *Anchusa* sp. 2♀♀, *Elaeagnus* sp., 1♀, 14.VI.1993-Acıpayam, 800 m, *Carthamus* sp., 7♀♀, 2♂♂, *Rosa canina*, 1♀, *Iris* sp., 3♀♀, 1♂, herb, 1♀, 3♂♂, 14.VI.1993-Serinhisar, 900 m, Asteraceae, 3♀♀, 3♂♂, *Vitis vinifera*, 1♀; 14.VI.1993-Tavas, Kızılcabölük, 900 m, *Crataegus* sp., 2♀♀, *Avena sativa*, 1♀, 2♂♂, *Amygdalus communis*, 1♀, *Hordeum vulgare*, 2♀♀, 1♂; Yahşiler, 1030 m, *Pyrus elaeagnifolia*, 1♀, 14.VI.1993-Sarayköy, 200 m, *Althaea* sp., 3♀♀, 15.VI.1993-Yenipazar, Donduran, 100 m, *Carthamus* sp., 4♀♀, 1♂, 15.VI.1993-Çine, Hallaçlar, 150 m, *Morus alba*, 1♂, 15.VI.1993-Ortaklar, forest, 120 m, *Nerium oleander*, 1♀, 16.VI.1993-Ödemiş, 100 m, *Centaurea solstitialis*, 3♀♀, 3♂♂, 16.VI.1993-Kemalpaşa, 200 m, *Nerium oleander*, 4♀♀, 1♂, *Althaea* sp., 4♀♀, *Malva* sp., 1♀, *Anthemis* sp., 1♀, 1♂, herb, 5♀♀, 17.VI.1993-Turgutlu, 100 m, *Olea europaea*, 1♂, 17.VI.1993-Salihli, nursery, 50 m, *Tripleurospermum* sp., 1♀, 1♂, 17.VI.1993-Kula, 420 m, *Althaea* sp., 2♀♀, *Cynodon dactylon*, 1♀, 17.VI.1993-Selendi, 650 m, *Quercus* sp., 3♀♀, 1♂, *Anchusa* sp., 5♀♀, 2♂♂, 17.VI.1993-Uşak, 800 m, *Salvia* sp., 1♀, 18.VI.1993-Fethiye, forest, 1000 m, shrub, 1♀, *Daphne* sp., 1♂; Kadıköy, 200 m, *Styrax* sp., 2♀♀, *Prunus avium*, 1♀, 30.IV.1995-Köyceğiz, herb, 1♀, 01.V.1995-Muğla, 700 m, Asteraceae, 6♀♀, 2♂♂, 01.V.1995-Söke, Asteraceae, 2♂♂, 02.V.1995-Çal, 890 m, *Crataegus* sp., 2♀♀, 04.V.1995-Bekilli, 920 m, *Boreava orientalis*, 2♀♀, 04.V.1995-Çivril, 800 m, *Papaver somniferum*, 1♀, herb, 1♀, 1♂, *Euphorbia* sp., 1♀, 18.VI.1993; 900 m, *Amygdalus communis*, 1♀, Asteraceae, 5♀♀, Yassihöyük, 870 m, *Prunus avium*, 3♀♀, *Malus communis*, 1♀; Işıklı Lake, 900 m, *Crataegus* sp., 2♀♀; Gümüşsu, 900 m, *Prunus avium*, 1♀, 04.V.1995-Dinar, 900 m, *Prunus avium*, 1♀; *Malus communis*, 2♀♀, 04.V.1995.

Haplothrips tritici Kurdjumov

Material: Çavdır, 1000 m, *Triticum aestivum*, 6♀♀, 1♂, herb, 1♀, *Avena sativa*, 6♀♀, 4♂♂, 14.VI.1993-Acıpayam, 800 m, *Bromus* sp., 1♂, *Avena sativa*, 8♀♀, 1♂, 14.VI.1993-Serinhisar, 900 m, *Crataegus* sp., 2♀♀, 14.VI.1993-Tavas, Kızılcabölük, 900 m, grass, 8♀♀, *Hordeum vulgare*, 2♀♀, 1♂, 14.VI.1993-Selendi, 650 m, *Avena sativa*, 3♀♀, 17.VI.1993-Uşak, 900 m, *Avena sativa*, 3♀♀, 5♂♂, *Triticum aestivum*, 7♀♀, 2♂♂, *Hordeum vulgare*, 3♀♀, 18.VI.1993-Sivaslı, 900 m, *Triticum aestivum*, 7♀♀, 3♂♂, *Triticum aestivum*, 3♀♀, 18.VI.1993-Fethiye, Kadıköy, 200 m, *Triticum*

aestivum, 2♀♀, 4♂♂, 30.IV.1995-Muğla, 700 m, *Quercus* sp., 1♂; *Avena* sp., 2♀♀, 2♂♂; *Triticum aestivum*, 3♀♀, 01.V.1995-Yatağan, 740 m, *Crataegus* sp., 1♀, *Euphorbia* sp., 1♀, *Triticum aestivum*, 6♀♀, 01.V.1995-Kuşadası, *Triticum aestivum*, 1♀, 1♂, 02.V.1995-Çal, 640 m, *Triticum aestivum*, 7♀♀, 2♂♂; 900 m, cereal, 4♀♀, 940 m, cereal, 1♀, 840 m, cereal, 3♀♀, 1♂; 890 m, herb, 3♀♀; Süller, 920 m, cereal, 8♀♀, 2♂♂, 04.V.1995-Çivril, 800 m, herb, 1♂, *Triticum aestivum*, 4♀♀, 2♂, 18.VI.1993; 900 m, *Triticum aestivum*, 6♀♀; Yassihöyük, 870 m, *Triticum aestivum*, 2♀♀; Gümüşsu, 900 m, *Hordeum sativum*, 6♀♀, 04.V.1995-Dinar, 900 m, cereal, 2♀♀, cereal, 3♀♀, 04.V.1995.

Liothrips austriacus Karny

Material: Selendi, 650 m, *Pistacia* sp., 1♀, 1♂, 17.VI.1993.

Distribution in Turkey: Known to occur in Turkey according to the files of the Forschungsinstitut Senckenberg, Frankfurt am Main, Germany (R. zur Strassen, personal communication, 1998), but no specific location was given.

Neoheegeria verbasci (Osborn)

Material: Bayındır, 50 m, *Verbascum* sp., 1♀, 1♂, 16.VI.1993-Milas, Selimiye, 150 m, *Verbascum* sp., 3♀♀, 02.V.1995.

Distribution in Turkey: Antalya, Mersin, Afyonkarahisar, İzmir, Manisa, Bursa, İstanbul, Ankara, Konya.

Discussion

The study revealed 82 Thysanoptera species, of which 28 are new records for the Aegean region (Table). One genus, *Prosopothrips* Uzel, and 3 species, *Oxythrips halidayi* Bagnall, *Prosopothrips nigriceps* Bagnall, and *Rubiothrips validus* (Karny), are new records for Turkish fauna.

The most common and abundant species (with the number of samples-specimens found) were *Thrips meridionalis* (Priesner) (102-481), *Thrips tabaci* Lindeman (97-287), and *Thrips angusticeps* Uzel (76-333). Among the others, *Aeolothrips intermedius* Bagnall (65-161), *Aeolothrips collaris* Priesner (46-96), *Haplothrips reuteri* (Trybom) (54-132), and *Haplothrips tritici* Kurdjumov (35-158) were relatively more frequent and abundant.

Table. The list, frequency, and abundance of Thysanoptera species (adults) found in the Aegean region of Turkey in 1993 and 1995.

No.	Species	f ¹	a ²	No.	Species	f ¹	a ²
AEOLOTHRIPIDAE							
1	<i>Aeolothrips collaris</i>	46	96	41	<i>Odontothrips meridionalis</i>	11	48
2	<i>Aeolothrips fasciatus</i>	6	11	42	<i>Oxythrips ajugae</i>	11	28
3	<i>Aeolothrips ericae</i>	1	4	43	<i>Oxythrips halidayi</i>	1	1
4	<i>Aeolothrips gloriosus</i>	9	14	44	<i>Oxythrips priesneri</i>	1	1
5	<i>Aeolothrips intermedius</i>	65	161	45	<i>Pezothrips kellyanus</i>	1	1
6	<i>Aeolothrips linarius</i>	2	3	46	<i>Prosopothrips nigriceps</i>	1	1
7	<i>Aeolothrips melaleucus</i>	4	4	47	<i>Rubiothrips vitis</i>	2	3
8	<i>Aeolothrips tenuicornis</i>	2	7	48	<i>Rubiothrips validus</i>	1	4
9	<i>Aeolothrips versicolor</i>	2	2	49	<i>Scolothrips longicornis</i>	1	1
10	<i>Melanthrips fuscus</i>	9	24	50	<i>Sitothrips arabicus</i>	10	22
11	<i>Melanthrips pallidior</i>	8	16	51	<i>Stenothrips graminum</i>	9	23
12	<i>Melanthrips rivnayi</i>	1	1	52	<i>Taeniothrips inconsequens</i>	4	8
13	<i>Melanthrips trifasciatus</i>	10	29	53	<i>Tenothrips anatolicus</i>	6	32
14	<i>Orothrips priesneri</i>	1	1	54	<i>Tenothrips discolor</i>	7	39
15	<i>Rhipidothrips brunneus</i>	2	12	55	<i>Tenothrips frici</i>	26	85
16	<i>Rhipidothrips flavus</i>	2	3	56	<i>Thrips angusticeps</i>	76	333
17	<i>Rhipidothrips graciosus</i>	9	31	57	<i>Thrips atratus</i>	3	9
FAURIELLIDAE							
18	<i>Ropotamothrips reszli</i>	1	1	58	<i>Thrips dubius</i>	2	6
THRIPIDAE							
19	<i>Anaphothrips obscurus</i>	15	36	59	<i>Thrips fedorovi</i>	1	4
20	<i>Aptinothrips rufus</i>	4	16	60	<i>Thrips fuscipennis</i>	1	3
21	<i>Bregmatothrips dimorphus</i>	4	8	61	<i>Thrips italicus</i>	34	102
22	<i>Chirothrips aculeatus</i>	7	7	62	<i>Thrips major</i>	32	84
23	<i>Chirothrips kurdistanus</i>	4	10	63	<i>Thrips meridionalis</i>	102	481
24	<i>Chirothrips manicatus</i>	13	33	64	<i>Thrips minutissimus</i>	14	49
25	<i>Collembolothrips mediterraneus</i>	5	14	65	<i>Thrips physapus</i>	5	11
26	<i>Dendrothrips saltatrix</i>	4	4	66	<i>Thrips tabaci</i>	97	287
27	<i>Drepanothrips reuteri</i>	3	4	67	<i>Thrips trehernei</i>	1	11
28	<i>Eremiothrips taghizadehi</i>	2	11	68	<i>Thrips viminalis</i>	2	6
29	<i>Frankliniella intonsa</i>	7	17	PHLAEOTHRIPIDAE			
30	<i>Frankliniella pallida</i>	1	1	69	<i>Apterygothrips priesneri</i>	1	2
31	<i>Frankliniella tenuicornis</i>	20	64	70	<i>Cephalothrips monilicornis</i>	2	5
32	<i>Isoneurothrips australis</i>	4	10	71	<i>Compsothrips albosignatus</i>	1	4
33	<i>Kakothrips robustus</i>	2	8	72	<i>Haplothrips aculeatus</i>	12	28
34	<i>Limothrips angulicornis</i>	6	19	73	<i>Haplothrips andresi</i>	23	40
35	<i>Limothrips cerealium</i>	5	8	74	<i>Haplothrips anthemidinus</i>	1	1
36	<i>Limothrips denticornis</i>	11	20	75	<i>Haplothrips distinguendus</i>	10	28
37	<i>Limothrips transcaucasicus</i>	1	1	76	<i>Haplothrips flavicinctus</i>	6	28
38	<i>Mycterothrips albidicornis</i>	7	10	77	<i>Haplothrips globiceps</i>	2	4
39	<i>Mycterothrips salicis</i>	1	4	78	<i>Haplothrips knechteli</i>	8	13
40	<i>Neohydatothrips gracilicornis</i>	16	41	79	<i>Haplothrips reuteri</i>	54	132
				80	<i>Haplothrips tritici</i>	35	158
				81	<i>Liothrips austriacus</i>	1	2
				82	<i>Neoheegeria verbasci</i>	2	5
Total						405	2899

¹Frequency; number of samples in which the species was found;²Abundance; number of individuals.

Biogeographical distribution of the Thysanoptera species found in the Aegean region may be summarized as follows (abbreviations: CSE, only Central and South Europe; NA: spread to North America). A few species are Cosmopolitan, Table, list no: 19, 20, and 66; or Semi-Cosmopolitan, 35; or Holarctic, 7, 24, 31, 57, and 67. The majority of species are Palaearctic, some with limited distribution within the region and some expanded beyond it. Whole Palaearctic, 27, 30, 40, 51, 52, 62, and 65; Palaearctic without N. Africa, 2, 5, 26, 29 (NA and South Asia), 60 (NA), and 72; West Palaearctic, 10, 15 (NA and Australia), 17 (NA), 22 (without North Africa), 34, 49, 51 (NA), 55, 56, 75, and 80; Euro-Siberian, 3 (NA), 9 (NA), 36 (NA and Australia), 39, 68, and 70 (NA); European, 11 (Turano-Eur.), 33 (also Transcaspien, Syria), 38, 42, 43 (only England, France, Germany, and Crimea), 44 (CSE), 48, 58 (roughly countries between France and Ukraine in a band, Cyprus, and Georgia) 61, 64, 78 (only south), 81 (CSE), and 82 (NA). A high number of species within the Palaearctic region are Mediterranean in one way or another. Whole Mediterranean, 1 (also Mongolia, S. Asia, and the Atlantic islands), 4, 8 (also Central Europe), 21 (also Yemen, Sudan, and S. Africa), 32 (also tropics), 41, 54 (Turano-Ponto-Med.), 69, 71 (Ponto-Med.), 73 (Indo-Med.), 74, and 79 (Turano-Med.); East Mediterranean, 13, 37 (Turano-E. Med.), 50 (South Mediterranean, Georgia, and Iran), and 76 (also Georgia); North Mediterranean, 6, including Iran, 28 or Balkans, 61 or both 12, 14, 46, 63 (also North India, South Caucasia, and Ukraine), or Australia and N. Zealand, 45. One species is limited to the Balkans and Middle East, 47. Some species are even more limited and are known from only Turkey and a few of its neighboring countries, e.g., Iran, 16; Georgia and Romania, 18; Iran and Israel, 23; Cyprus, 25; Greece and Israel, 53; and Ukraine, Romania, and Bulgaria, 59. Finally, one species, 77, is endemic.

Analysis of the hosts of the Thysanoptera species found indicates that those that inhabit cereals and grasses constitute a large group represented by 22 species, Table, list no: 15-17, 19-25, 31, 34-37, 46, 50, 51, 70, 72, 76, and 80. However, the largest group, which includes 28 species, is made up of those inhabiting woody plants. Of these, 25 are living on deciduous or evergreen trees or shrubs (with their preferred hosts): 4, 7, 9, 12, 13, 14 (Rosaceae), 26,

27, 32 (*Eucalyptus*), 38, 39 (*Populus*, *Salix*), 41, 43, 45 (*Citrus*), 47 (grapes), 52 (Rosaceae), 57, 62, 64 (*Quercus*), 68 (*Salix*), 71, 73, 77 (grapes), 78, and 81; and 3 are living on conifers (pines): 42, 44, and 69. Several species are rather polyphagous and their host list may include many herbaceous and ligneous plants: 11, 29, 40, 56, 60, 63, 66, and 79; while some others mostly prefer plants in a single family or genus such as Asteraceae: 54, 55, 65, 67, 74, and 75; Brassicaceae: 10; Fabaceae: 3; Lamiaceae: 53; *Chenopodium*: 28; *Galium*: 48; *Salvia*: 59; *Spartium*: 33; *Verbascum*: 82. Finally, 8 species are known as predators of small arthropods: 1, 2, 5, 7-9, 14, and 49.

Many species found in the present study are known as pests of various crops in different parts of the world. However, only a few are recognized as pests or potential pests in Turkey: Kelly's citrus thrips *Pezothrips kellyanus* (Bagnall) on citrus; grape thrips *Rubiothrips vitis* (Priesner) on grapes; onion thrips *Thrips tabaci* Lindeman on cotton and vegetables, in particular bulbous ones, e.g., onion, garlic, and leek; and wheat thrips *Haplothrips tritici* Kurdjumov on wheat.

The introduced pest western flower thrips (WFT) *Frankliniella occidentalis* (Pergande) was not traced in surveys of the present study, which were conducted in June 1993 and April and May 1995. The first recorded encounters with *F. occidentalis* in Turkey were in the Mediterranean region, in May 1992 in Burdur Province (Tunç et al., 2012) and in December 1993 in Antalya Province (Tunç and Göçmen, 1994). On the other hand, the first specimens of *F. occidentalis* from the Aegean region were collected in July 1995, after the present study, from greenhouse-grown tomatoes in İzmir (collector: Nilgün Yaşarakıncı, Bornova Plant Protection Research Institute, İzmir). Recently, *F. occidentalis* seems to have invaded many parts of the region and has become the predominating thrips species on many crops and wild plants. The present study may provide a basis for comparisons of Thysanoptera fauna of the Aegean region before and after the *F. occidentalis* invasion.

Acknowledgment

The study was supported by Scientific Research Projects Coordination Unit of Akdeniz University.

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