



Southeastern Anatolia region insect fauna II (Order Hemiptera I: Suborder Heteroptera I: Gerroidea, Hebroidea, Corixoidea, Notonectoidea, Leptopodoidea, Cimicoidea, Naboidea, Mirioidea) of Turkey

Güneydoğu Anadolu Bölgesi böcek faunası II (Order Hemiptera I: Suborder Heteroptera I: Gerroidea, Hebroidea, Corixoidea, Notonectoidea, Leptopodoidea, Cimicoidea, Naboidea, Mirioidea)

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ABSTRACT

Evaluations on insect species of various ecologies have been conducted in the provinces (Adıyaman, Batman, Gaziantep, Diyarbakır, Mardin, Siirt, Şanlıurfa, Şırnak) of Southeastern Anatolia region between the years 1948-2013. During this study a total of 187 species were found in 8 families and in 8 superfamilies of Hemiptera (Suborder Heteroptera). Those superfamilies are Gerroidea, Hebroidea, Corixoidea, Notonectoidea, Leptopodoidea, Cimicoidea, Naboidea, and Miroidea. The distribution of determined insect types according to the provinces, plant hosting and feeding type was also included. Information about their identification, host plants, and distribution in Southeastern Anatolia Region is presented as detailed.

Key Words: Insect fauna, Hemiptera, Heteroptera, Southeastern Anatolia Region, Turkey

ÖZ

Güneydoğu Anadolu Bölgesi illerinde (Adıyaman, Batman, Gaziantep, Diyarbakır, Mardin, Siirt, Şanlıurfa, Şırnak) 1948-2013 yılları arasında değişik ekolojilerdeki böcek türlerinin değerlendirilmesi yapılmıştır. Bu çalışma sonucunda Hemiptera (Alt takım: Heteroptera) takımına dahil 8 üst familyaya ait 8 familyadan toplam 187 böcek türü belirlenmiştir. Bu üst familyalar Gerroidea, Hebroidea, Corixoidea, Notonectoidea, Leptopodoidea, Cimicoidea, Naboidea ve Miroidea'dir. Belirlenen böcek türlerinin illere, konukçu bitki ve beslenme çeşidine göre dağılımı ortaya konmuştur. Güneydoğu Anadolu Bölgesindeki belirlenen böcek türlerinin konukçusu olan bitkiler ve dağılımları detaylıca sunulmuştur.

Anahtar Kelimeler: Böcek faunası, Hemiptera, Heteroptera, Güneydoğu Anadolu Bölgesi, Türkiye

Introduction

Insects (Insecta) are the most numerous group of animals in the world, with over one million species that have been described (Price, 1997).

Insects are difficult to study because they represent the most species-rich, yet one of the least known, of all taxa of living organisms, a problem that is compounded by a dearth of skilled entomologists. Although the number of described

insect species is uncertain due to synonyms and the lack of a global list, most authorities recognize 900 000–1 000 000 named morpho-species, representing 56% of all species known on Earth (Groombridge, 1992; Anonymous, 2003). Sensible estimates of the number of insects yet to be discovered range from another 1 million to 30 million species (Erwin, 1982, 1991), although most predict around 2–8 million more species (May, 1990; Gaston, 1991; Stork, 1997; Ødegaard, 2000). Conservative estimates suggest that 50-90% of the existing insect species on Earth have still to be discovered, yet the named insects alone comprise more than half of all known species of organism.

Insects constitute the most diverse form of animal life in terrestrial ecosystems. Most species are innocuous and essential components of natural ecosystems. Because they are cold-blooded, the rates of key physiological processes in their life cycles are determined by environmental conditions, especially temperature and precipitation. In general they have short generation times, high fecundity and high mobility

(Moore and Allard, 2008).

Turkey in fact seems to be like a small continent in terms of biological diversity. Despite the Anatolia is not a continent alone, it contains all properties of a continent that should have an ecosystem and habitat. Each of seven geographical regions in Turkey has a distinguishable climate, flora and fauna.

Heteroptera includes 9365 species belonging to 1632 genera in Palaearctic Region (Aukema et al., 2013).

This study aims to determine insect species found in various ecologies on Southeastern Anatolia region of Turkey.

Materials and Methods

Entomology studies on insect species of Southeastern Anatolia Region (Adıyaman, Batman, Gaziantep, Diyarbakır, Mardin, Siirt, Şanlıurfa, Şırnak) in different ecological provinces were made between the years 1948-2013 (Figure 1).

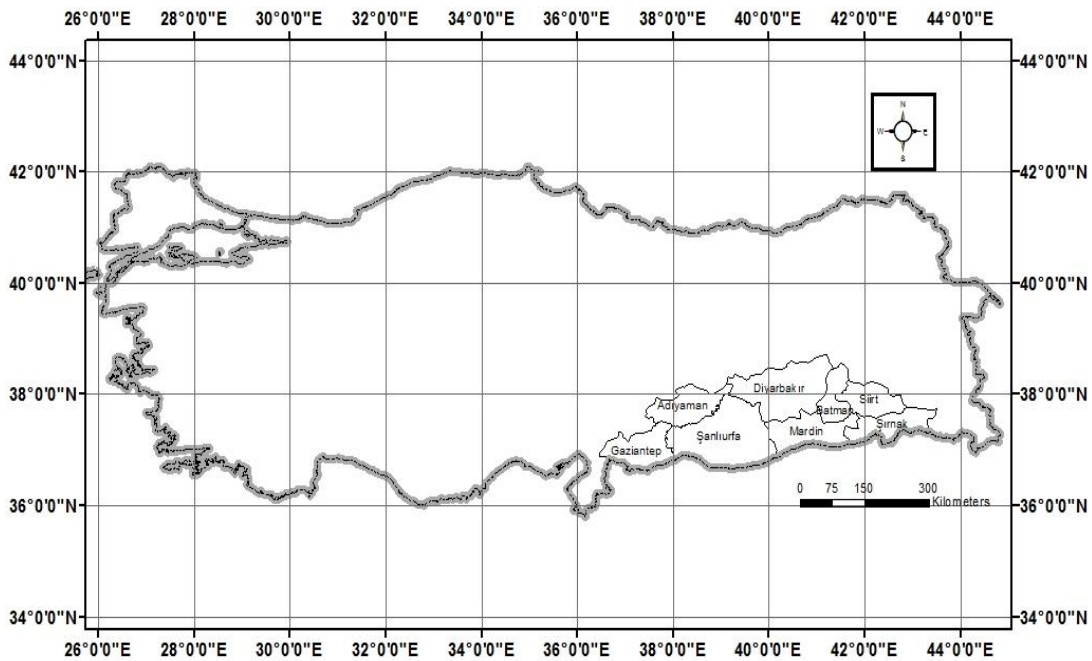


Figure 1. Sampling localities in Southeastern Anatolia Region of Turkey
Şekil 1. Güneydoğu Anadolu Bölgesi'ndeki örnekleme alanları

In this study, I prepared for the inventory has reached the major advantage of the waterways:

-Currently in Turkey, published or unpublished entomology journals related to scanning,

-Giving more weight to faunistic studies, and in the meantime, the insect fauna of our country foreign scientific journals that publishes articles about scanning,

-Faculty of Agriculture, Faculty of Science and Regional Plant Protection Research Institute in the library of books on insect fauna and the screening of the booklet,

-The doctorate (PhD) and the master's thesis of entomology in the region on the scanning,

-Review of other studies on the insect fauna in the area.

In this study, I evaluated the information as described above were obtained

Results and Discussion

Surveys on insect species in various ecologies have been conducted in the provinces (Adıyaman, Batman, Gaziantep, Diyarbakır, Mardin, Siirt, Şanlıurfa, Şırnak) of Southeastern Anatolia region between the years 1948-2013. Almost 2600 species and subspecies almost 180 families belonging to 13 insect orders are defined owing to these studies. The distributions of determined insect species are as follows: Hemiptera (Suborder Heteroptera) included 8 families were recorded (Table 1).

Table 1. Number of species of Suborder Heteroptera on Southeastern Anatolia Region

Çizelge 1. Güneydoğu Anadolu Bölgesi'nde belirlenen Heteroptera alt takımına ait türlerin sayısı

Suborder	Superfamily Üstfamilya	Family Familya	Number Species Tür Sayısı
Heteroptera	Gerroidea	Gerridae	1
	Hebroidea	Hebridae	2
	Corixoidea	Corixidae	8
	Notonectoidea	Notonectidae	1
	Leptopodoidea	Leptopodidae	1
	Cimicoidea	Anthocoridae	19
	Naboidea	Nabidae	9
	Miroidea	Miridae	146
Total	8	8	187

Order Hemiptera (bugs)

Suborder Heteroptera

Superfamily Gerroidea

Family Gerridae

Gerris lacustris (Linnaeus, 1758)

Distribution of the studies area: Gaziantep;
Host plant: Wetland (Önder et al., 2006).

Superfamily Hebroidea

Family Hebridae

Hebrus montanus Kolenati, 1857

Distribution of the studies area: Gaziantep;
Host plant: Wetland (Önder et al., 2006).

Hebrus pusillus pusillus (Fallén, 1807)

Distribution of the studies area: Gaziantep;
Host plant: Wetland (Önder et al., 2006).

Superfamily Corixoidea

Family Corixidae

Corixa affinis Leach, 1817

Distribution of the studies area: Diyarbakır,
Host plant: Light trap (Önder and Adıgüzel 1979).

Corixa punctata (Illiger, 1807)

Distribution of the studies area: Diyarbakır,
Host plant: Light trap (Lodos et al., 1984;
Gözüaçık, 2012)

Corixa vermiculata Put.

Distribution of the studies area: Diyarbakır,
Host plant: Light trap (Lodos et al., 1984;
Gözüaçık, 2012)

Micronecta griseola (Linnaeus)

Distribution of the studies area: Gaziantep,

Host plant: Meadow pasture, Wetland (Önder et al., 2006)

Micronecta (Micronecta) wui alkani Hoberlandt, 1952

Distribution of the studies area: Gaziantep, Host plant: Meadow pasture (Önder et al., 2006)

Sigara lateralis (Leach, 1817)

Distribution of the studies area: Diyarbakır, Gaziantep, Host plant: Wetland (Önder et al., 2006)

Sigara nigrolineata nigrolineata (Fieber, 1848)

Distribution of the studies area: Diyarbakır, Gaziantep, Host plant: Wetland (Önder et al., 2006)

Sigara samani tigranes Jansson, 1986

Distribution of the studies area: Diyarbakır, Mardin, Host plant: Meadow pasture (Önder et al., 2006)

Superfamily Notonectoidea

Family Notonectidae

Anisops sardeus sardeus Herrich-Schaeffer 1849

Distribution of the studies area: Gaziantep, Host plant: Meadow pasture (Önder et al., 2006)

Superfamily Leptopodoidea

Family Leptopodidae

Patapius spinosus (Rossi, 1790)

Distribution of the studies area: Adıyaman, Batman, Diyarbakır, Gaziantep, Mardin, Siirt, Şanlıurfa, Şırnak, Host plant: Light trap, Meadow pasture, *Pistacia vera* L. (Önder et al., 2006; Matocq and Özgen, 2010)

Superfamily Cimicoidea

Family Anthocoridae

Anthocoris confusus Reuter 1884.

Distribution of the studies area: Diyarbakır, Host plant: Light trap (Lodos et al., 1984; Gözüaçık, 2012)

Anthocoris minki Dohrn, 1860

Distribution of the studies area: Adıyaman, Batman, Diyarbakır, Gaziantep, Mardin, Siirt, Host plant: Pistachio, Almond, Olive (Çelik, 1981; Yanık, 1997; Bolu, 2002; Ölmez and Ulusoy, 2002; Bolu et al., 2005; Özgen ve Karsavuran, 2005; Kaplan et al., 2011; Yanık et al., 2011; Maral, 2012)

Anthocoris minki minki Dohrn

Distribution of the studies area: Diyarbakır, Mardin, Host plant: Almond (Maral, 2012)

Anthocoris minki pistaciae Wagner

Distribution of the studies area: Diyarbakır, Mardin, Host plant: Almond (Maral, 2012)

Anthocoris nemoralis (Fabricius, 1794)

Distribution of the studies area: Adıyaman, Gaziantep, Mardin, Şanlıurfa, Host plant: Olive (Kaplan et al., 2011)

Cardiastethus nazarenus Reuter, 1884

Distribution of the studies area: Adıyaman, Batman, Diyarbakır, Gaziantep, Mardin, Siirt, Şanlıurfa, Şırnak, Host plant: Forest area (Önder et al., 2006)

Dufouriellus ater (Dufour, 1883)

Distribution of the studies area: Gaziantep Host plant: Forest area (Önder et al., 2006)

Lyctocoris dimidiatus (Spinola, 1837)

Distribution of the studies area: Gaziantep Host plant: Forest area (Önder et al., 2006)

Orius albidipennis (Reuter, 1884)

Distribution of the studies area: Adıyaman, Batman, Diyarbakır, Gaziantep, Mardin, Siirt, Şanlıurfa Host plant: Cotton (Büyük and Kazak, 2010)

Orius horvathi (Reuter, 1884)

Distribution of the studies area: Adıyaman, Diyarbakır, Gaziantep, Mardin, Siirt, Şanlıurfa Host plant: Almond, Cotton, Melon, Light trap, Olive, Pistachio, Watermelon (Çelik, 1981; Karaat et al., 1986 (2); Akkaya, 1995; Göven, 1995; Büyük and Özpınar, 1999; Bolu et al., 2005; Özgen and Karsavuran, 2005)

Orius laevigatus (Fieber, 1860)

Distribution of the studies area: Diyarbakır, Mardin, Şanlıurfa Host plant: Light trap (Önder and Adıgüzel, 1979)

Orius laticollis (Reuter, 1884)

Distribution of the studies area: Diyarbakır, Mardin, Şanlıurfa Host plant: Light trap (Önder and Adıgüzel, 1979)

Orius minutus (Linnaeus, 1758)

Distribution of the studies area: Adıyaman, Batman, Diyarbakır, Gaziantep, Mardin, Siirt, Şanlıurfa Host plant: Chickpea, Cotton, Lentil, Pomegranate, Light trap (Önder & Adıgüzel 1979; Yaşarakıncı 1991; Göven 1995; Özpınar & Yücel 2002)

Orius niger (Wolff, 1811)

Distribution of the studies area: Adıyaman, Batman, Diyarbakır, Gaziantep, Mardin, Siirt, Şanlıurfa Host plant: Cotton, Light trap, Pomegranate (Önder and Adıgüzel 1979; Karaat et al., 1986 (2); Göven and Efil, 1994)

Orius pallidicornis (Reuter, 1884)

Distribution of the studies area: Southeastern Anatolia Region, Host plant: Forest area (Önder et al., 2006)

Orius vicinus (Ribaut, 1923)

Distribution of the studies area: Southeastern Anatolia Region, Host plant: Cotton (Büyük 2008)

Temnostethus reduvinus (Herrich-Schäffer, 1853)

Distribution of the studies area: Adıyaman, Host plant: Pistachio (Yanık, 1997; Bolu, 2002)

Xylocoris cursitans (Fallen, 1807)

Distribution of the studies area: Mardin, Host plant: Unknown (Önder et al., 2006)

Xylocoris (Proxylocoris) galactinus (Fieber, 1836)

Distribution of the studies area: Siirt Host plant: Pistachio (Matocq and Özgen, 2010)

Superfamily Naboidea

Family Nabidae

Aspilaspis viridis (Brullé, 1835)

Distribution of the studies area: Adıyaman, Batman, Diyarbakır, Gaziantep, Mardin, Siirt, Şanlıurfa, Şırnak Host plant: Grassland (Önder et al., 2006)

Nabis capsiformis (Germar, 1838)

Distribution of the studies area: Adıyaman, Batman, Diyarbakır, Gaziantep, Mardin, Siirt, Şanlıurfa, Şırnak Host plant: Forest area, Grassland (Önder et al., 2006; Matocq and Özgen, 2010)

Nabis fesus (Linnaeus, 1758)

Distribution of the studies area: Southeastern Anatolia Region, Host plant: Cotton, Forest area, Grassland (Özpınar and Yücel, 2002; Önder et al., 2006)

Nabis pseudoferus Romane, 1949

Distribution of the studies area: Southeastern Anatolia Region, Host plant: Almond, Cotton, Lentis, Pistachio, Pomegranate, Vegetables (Önder and Adıgüzel, 1979; Lodos et al., 1984; Karaat et al., 1986; Göven and Efil, 1994; Göven and Gümüş, 1998; Bolu, 2002; Bolu et al., 2005; Özpınar and Yücel, 2002; Önder et al., 2006; Gözüaçık, 2012)

Nabis pseudoferus orientarius Remane, 1962

Distribution of the studies area: Diyarbakır, Mardin, Siirt Host plant: Pistachio, The culture plant (Matocq and Özgen, 2010; Maral, 2012)

Nabis punctatus Costa, 1843

Distribution of the studies area: Adıyaman, Batman, Diyarbakır, Gaziantep, Mardin, Siirt, Şanlıurfa, Host plant: Almond, Chickpea, Lentis, Pistachio, Vegetables (Bolu, 2002; Bolu et al., 2005; Yaşarakıncı, 1999)

Nabis rugosus (Linnaeus, 1758)

Distribution of the studies area: Adıyaman, Batman, Diyarbakır, Gaziantep, Mardin, Siirt, Şanlıurfa, Host plant: Cotton, Pomegranate (Önder and Adıgüzel, 1979; Karaat et al., 1986; Göven and Efil, 1994; Göven and Gümüş, 1998)

Nabis sareptanus, Dohrn, 1862

Distribution of the studies area: Diyarbakır,

Host plant: Grassland (Önder and Adıgüzel, 1979; Önder et al., 2006)

Phorticus velutinus Puton, 1895

Distribution of the studies area: Adıyaman,
Host plant: Grassland (Önder et al., 2006)

Superfamily Miroidea

Family Miridae

Acrorrhinium atricorne Linnavuori, 2006

Distribution of the studies area: Siirt, Host
plant: Pistachio (Matocq and Özgen, 2010)

Acrorrhinium conspersus Noualhier, 1895

Distribution of the studies area: Adıyaman,
Batman, Diyarbakır, Gaziantep, Mardin, Siirt,
Şanlıurfa, Host plant: Pistachio, Pomegranate,
Light trap (Günaydın, 1978; Önder and Adıgüzel,
1979; Bolu, 2002; Yücel et al., 2002; Lodos et al.,
2003; Matocq and Özgen, 2010)

Adelphocoris bimaculicollis Lindberg, 1948

Distribution of the studies area: Diyarbakır,
Host plant: Grassland (Önder et al., 2006)

Adelphocoris lineolatus (Goeze, 1778)

Distribution of the studies area: Adıyaman,
Batman, Diyarbakır, Gaziantep, Mardin, Siirt,
Şanlıurfa, Şırnak, Host plant: Meadow pasture,
Trifolium, Vetch (Bingöl, 1978; Akkaya, 1995;
Lodos et al., 2003)

Adelphocoris vandalicus (Rossi, 1790)

Distribution of the studies area: Adıyaman,
Batman, Diyarbakır, Gaziantep, Mardin, Siirt,
Şanlıurfa, Şırnak, Host plant: Meadow pasture,
Trifolium, Vetch (Bingöl, 1978; Akkaya, 1995)

Alloeotomus cyprius (Wagner, 1953)

Distribution of the studies area: Siirt, Host
plant: Pistachio (Matocq and Özgen, 2010)

Alloeomimus kurdus Hoberlandt, 1953

Distribution of the studies area: Adıyaman,
Batman, Gaziantep, Mardin, Siirt, Şanlıurfa, Host
plant: Meadow pasture, Pistachio (Günaydın,
1978; Bolu, 2002; Lodos et al., 2003; Önder et al.,
2006)

Amblytylus concolor Jakovlev, 1877

Distribution of the studies area: Gaziantep,
Host plant: Meadow pasture, Weeds (Lodos et al.,
2003; Önder et al., 2006)

Amblytylus jani Fieber, 1858

Distribution of the studies area: Gaziantep,
Host plant: Meadow pasture (Lodos et al., 2003;
Önder et al., 2006)

Antepia guttalis Seidenstücker, 1960

Distribution of the studies area: Gaziantep,
Host plant: Meadow pasture (Önder et al., 2006)

Atomoscelis onustus (Fieber, 1861)

Distribution of the studies area: Gaziantep,
Host plant: Meadow pasture, Weeds (Lodos et al.,
2003; Önder et al., 2006)

Atractotomus mali (Meyer-Dur, 1843)

Distribution of the studies area: Diyarbakır,
Gaziantep, Siirt, Host plant: *Amygdalus*
communis, *Amygdalus* sp., Meadow pasture
(Lodos et al., 2003; Önder et al., 2006)

Auchenocrepis reuteri Jakovlev, 1876

Distribution of the studies area: Gaziantep,
Siirt, Host plant: Meadow pasture, Pistachio,
Tamarix sp. (Lodos et al., 2003; Önder et al.,
2006; Matocq and Özgen 2010)

Badezorus signaticornis (Reuter, 1904)

Distribution of the studies area: Gaziantep,
Siirt, Host plant: Meadow pasture, Pistachio
(Matocq and Özgen 2010)

Brachynotocoris puncticornis Reuter, 1880

Distribution of the studies area: Diyarbakır,
Gaziantep, Host plant: Light trap, *Vitex agnus*
castus (Lodos et al., 2003; Önder and Adıgüzel,
1979)

Brachycoleus lineellus Jakovlev, 1884

Distribution of the studies area: Gaziantep,
Host plant: Meadow pasture (Lodos et al., 2003;
Önder et al., 2006)

Brachycoleus steini Reuter, 1877

Distribution of the studies area: Gaziantep,

Host plant: Meadow pasture (Önder et al., 2006)

Brachycoleus thoracicus Puton, 1892

Distribution of the studies area: Diyarbakır, Gaziantep, Mardin, Host plant: Meadow pasture (Lodos et al., 2003; Önder et al., 2006)

Brachynotocoris cyprius Wagner, 1960

Distribution of the studies area: Gaziantep, Host plant: The culture plant (Önder et al., 2006)

Brachynotocoris puncticornis Reuter, 1880

Distribution of the studies area: Gaziantep, Host plant: *Vitex agnus castus* (Lodos et al., 2003; Önder et al., 2006)

Calocoris annulus (Brullé, 1832)

Distribution of the studies area: Southeastern Anatolia Region, Host plant: Meadow pasture (Önder et al. 2006)

Calocoris angularis (Fieber, 1864)

Distribution of the studies area: Adıyaman, Gaziantep, Host plant: Meadow pasture, Trifolium, Vetch (Bingöl, 1978; Lodos et al., 2003; Önder et al., 2006)

Calocoris costai Reuter, 1888

Distribution of the studies area: Mardin, Host plant: Meadow pasture, The culture plant (Önder et al., 2006)

Calocoris instabilis Fieber, 1861

Distribution of the studies area: Gaziantep, Host plant: Meadow pasture (Lodos et al., 2003; Önder et al., 2006)

Calocoris krueperi Reuter, 1880

Distribution of the studies area: Diyarbakır, Gaziantep, Host plant: Meadow pasture, *Medicago sativa*, *Pistacia vera*, *Raphanus sativum*, The culture plant, Weeds (Lodos et al., 2003; Önder et al., 2006)

Calocoris nemoralis (Fabricius, 1787)

Distribution of the studies area: Southeastern Anatolia Region, Host plant: Meadow pasture, The culture plant (Lodos et al., 2003; Önder et al., 2006)

Calocoris norvegicus (Gmelin, 1788)

Distribution of the studies area: Gaziantep, Host plant: *Tamarix* sp. (Lodos et al., 2003)

Calocoris pilicornis (Panzer, 1804)

Distribution of the studies area: Mardin, Host plant: Meadow pasture, The culture plant (Önder et al., 2006)

Calocoris porphypterus Reuter, 1894

Distribution of the studies area: Gaziantep, Host plant: Meadow pasture, The culture plant (Önder et al., 2006)

Calocoris putoni Horvath, 1888

Distribution of the studies area: Adıyaman, Diyarbakır, Gaziantep, Host plant: Meadow pasture, Vetch (Bingöl, 1978; Önder et al., 2006)

Calocoris quadripunctatus (Villers, 1789)

Distribution of the studies area: Gaziantep, Host plant: Forest plant, The culture plant (Önder et al., 2006)

Calocoris roseomaculatus (De Geer, 1773)

Distribution of the studies area: Diyarbakır, Gaziantep, Host plant: Weeds (Lodos et al., 2003)

Calocoris trivialis (Costa, 1852)

Distribution of the studies area: Adıyaman, Diyarbakır, Gaziantep, Mardin, Şanlıurfa Host plant: Olive (Kaplan et al., 2011)

Camponotidea fieberi Reuter, 1879

Distribution of the studies area: Adıyaman, Diyarbakır, Gaziantep, Siirt Host plant: Trifolium, Vetch (Bingöl, 1978)

Camponotidea saundersi (Puton, 1874)

Distribution of the studies area: Gaziantep, Siirt Host plant: *Medicago sativa*, The culture plant (Lodos et al., 2003; Önder et al., 2006)

Camptotylus linæ (Puton, 1881)

Distribution of the studies area: Gaziantep, Host plant: Meadow pasture, *Tamarix* sp. (Lodos et al., 2003; Önder et al., 2006)

Capsodes cingulatus (Fabricius, 1787)

Distribution of the studies area: Southeastern

Anatolia Region, Host plant: Meadow pasture, Forest plant (Önder et al., 2006)

Capsodes infuscatus (Brullé, 1832)

Distribution of the studies area: Gaziantep, Host plant: Meadow pasture (Önder et al., 2006)

Campylomma annulicornis (Signoret, 1865)

Distribution of the studies area: Diyarbakır, Şanlıurfa, Host plant: Cotton, Light trap, Vegetables (Önder and Adıgüzel, 1979; Göven and Efil, 1994)

Campylomma diversicornis (Reuter, 1878)

Distribution of the studies area: Adıyaman, Batman, Diyarbakır, Gaziantep, Mardin, Siirt, Şanlıurfa Southeastern Anatolia Region, Host plant: *Allium cepa*, Almond, Chickpea, Cotton, Light trap, Lentis, Meadow pasture, Pistachio, Pomegranate, Vegetables (Önder and Adıgüzel, 1979; Lodos et al., 1984; Karaat et al., 1986; Karaat et al., 1990; Yaşarakıncı, 1991; Türkmen et al., 1992; Göven and Efil, 1994; Göven et al., 1995; Yanık, 1997; Büyük and Özpınar, 1999; Bolu, 2002; Özpınar and Yücel, 2002; Lodos et al., 2003; Bolu et al., 2005; Önder et al., 2006; Efil et al., 2009)

Campylomma lindbergi Hoberlandt, 1952

Distribution of the studies area: Adıyaman, Batman, Diyarbakır, Gaziantep, Mardin, Siirt, Şanlıurfa Southeastern Anatolia Region, Host plant: Almond, Pistachio (Bolu, 2002; Yücel et al., 2002; Lodos et al., 2003; Bolu et al., 2005; Yanık et al., 2011; Önder et al., 2006)

Campylomma nicolasi Puton & Reuter, 1883

Distribution of the studies area: Adıyaman, Batman, Diyarbakır, Gaziantep, Siirt, Şanlıurfa, Southeastern Anatolia Region, Host plant: Chickpea, Meadow pasture, Lentis, *Quercus* sp. (Önder and Adıgüzel, 1979; Lodos et al., 1984; Şimşek, 1985; Yaşarakıncı, 1991; Lodos et al., 2003; Önder et al., 2006; Külekçi et al., 2009; Gözüaçık, 2012)

Campylomma verbasci (Meyer-Dûr, 1843)

Distribution of the studies area: Diyarbakır,

Gaziantep, Mardin, Siirt, Şanlıurfa, Şırnak, Host plant: Chickpea, Meadow pasture, Lentis, *Verbascum* sp. (Önder and Adıgüzel 1979; Lodos et al., 2003; Önder et al., 2006; Matocq and Özgen, 2010)

Capsodes infuscatus (Brullé, 1832)

Distribution of the studies area: Gaziantep, Host plant: Meadow pasture (Önder et al., 2006)

Charagochilus gyllenhali (Fallén, 1807)

Distribution of the studies area: Siirt, Host plant: Pistachio (Matocq and Özgen, 2010)

Chlamydatus pullus (Reuter, 1871)

Distribution of the studies area: Adıyaman, Batman, Diyarbakır, Gaziantep, Siirt, Şanlıurfa, Şırnak, Host plant: Meadow pasture, Trifolium, Vetch (Bingöl, 1978; Akkaya, 1995)

Chorosomella jakovleffi Horvath, 1906

Distribution of the studies area: Gaziantep, Şanlıurfa, Host plant: Meadow pasture, Weeds (Lodos et al., 2003; Önder et al., 2006)

Creontiades pallidus (Rambur, 1845)

Distribution of the studies area: Adıyaman, Diyarbakır, Mardin, Şanlıurfa, Host plant: Cotton (Özpınar and Yücel, 2002)

Cyphodema instabile (Lucas, 1849)

Distribution of the studies area: Adıyaman, Batman, Diyarbakır, Gaziantep, Mardin, Siirt, Şanlıurfa, Şırnak, Host plant: Agricultural area, Meadow pasture, *Medicago sativa*, Weeds (Lodos et al., 2003; Önder et al., 2006)

Deraeocoris cyprius Wagner, 1953

Distribution of the studies area: Mardin, Host plant: Forest area (Önder et al., 2006)

Deraeocoris delagrangi (Puton, 1892)

Distribution of the studies area: Mardin, Host plant: Olive (Kaplan et al., 2011)

Deraeocoris pallens Reuter, 1904

Distribution of the studies area: Adıyaman, Batman, Diyarbakır, Gaziantep, Mardin, Siirt, Şanlıurfa, Southeastern Anatolia Region, Host

plant: Agricultural area, *Allium cepa*, Almond, Chickpea, Cotton, Light trap, Lentis, Meadow pasture, Pistachio, Pomegranate, Weeds, Vegetables (Önder and Adıgüzel, 1979; Karaat et al., 1986; Yaşarakıncı, 1991; Türkmen et al., 1992; Göven and Efil, 1994; Özpınar and Yücel, 2002; Lodos et al., 2003; Önder et al., 2006; Matocq and Özgen 2010; Yanık et al., 2011)

Deraeocoris punctulatus (Fallen, 1807)

Distribution of the studies area: Gaziantep, Siirt, Host plant: Pistachio, Weeds (Lodos et al., 2003; Önder et al., 2006; Matocq and Özgen, 2010)

Deraeocoris rutilus (Herrich-Schäffer, 1839)

Distribution of the studies area: Diyarbakır, Gaziantep, Mardin, Siirt, Host plant: *Amygdalus* sp., Meadow pasture, Light trap, *Rhus* sp. (Önder and Adıgüzel, 1979; Lodos et al., 2003; Önder et al., 2006)

Deraeocoris serenus (Douglas & Scott, 1868)

Distribution of the studies area: Adıyaman, Batman, Diyarbakır, Gaziantep, Mardin, Siirt, Şanlıurfa, Southeastern Anatolia Region, Host plant: Agricultural area, Cotton, Light trap, Pomegranate, Weeds, Vegetables (Bingöl, 1978; Önder and Adıgüzel, 1979; Lodos et al., 1984; Karaat et al., 1986; Göven and Efil, 1994; Lodos et al., 2003; Gözüaçık, 2012; Maral, 2012)

Dicyphus albonasutus Wagner, 1951

Distribution of the studies area: Diyarbakır, Host plant: Light trap (Önder and Adıgüzel, 1979; Lodos et al., 1984; Gözüaçık, 2012)

Dionconotus cruentatus (Brullé, 1832)

Distribution of the studies area: Gaziantep, Host plant: Agricultural area, Meadow pasture (Lodos et al., 2003; Önder et al., 2006)

Ectagela guttata (Schmidt, 1939)

Distribution of the studies area: Gaziantep, Siirt, Host plant: Meadow pasture, Pistachio, Weeds (Lodos et al., 2003; Önder et al., 2006; Matocq and Özgen, 2010)

Exolygus gemellatus (Herrich-Schäffer, 1835)

Distribution of the studies area: Adıyaman, Batman, Diyarbakır, Gaziantep, Mardin, Siirt, Şanlıurfa, Şırnak, Host plant: Agricultural area, Leguminous forage crops, Meadow pasture, Vetch (Bingöl, 1978; Akkaya, 1995; Önder et al., 2006)

Exolygus pratensis (Linnaeus, 1758)

Distribution of the studies area: Adıyaman, Batman, Diyarbakır, Gaziantep, Mardin, Siirt, Şanlıurfa, Şırnak, Host plant: *Allium cepa*, *Chenopodium* sp., Cotton, Leguminous Forage crops, Light trap, Maize, *Pyrus communis*, Tobacco, *Triticum sativa*, Trifolium, *Urtica* sp., Vegetables, Vetch, Weeds (Bingöl, 1978; Önder and Adıgüzel, 1979; Karaat et al., 1986; Şimşek, 1988; Akkaya, 1995; Göven, 1995; Özpınar and Yücel, 2002; Lodos et al., 2003)

Exolygus rugulipennis (Poppius, 1911)

Distribution of the studies area: Adıyaman, Batman, Diyarbakır, Gaziantep, Mardin, Siirt, Şanlıurfa, Şırnak, Host plant: Cotton, Leguminous forage crops, *Medicago sativa*, Tobacco, Trifolium, *Triticum sativa*, Vetch (Bingöl, 1978; Karaat, 1986; Karaat et al., 1986; Akkaya, 1995; Lodos et al., 2003)

Grypocoris fieberi (Douglas & Scott, 1868)

Distribution of the studies area: Adıyaman, Diyarbakır, Gaziantep, Siirt, Host plant: Forest area, *Medicago sativa*, Meadow pasture, Trifolium, Vetch (Bingöl, 1978; Lodos et al., 2003; Önder et al., 2006)

Globiceps horvathi (Reuter, 1912)

Distribution of the studies area: Diyarbakır, Host plant: Meadow pasture (Önder et al., 2006)

Globiceps sordidus (Reuter, 1876)

Distribution of the studies area: Diyarbakır, Host plant: Meadow pasture (Önder et al., 2006)

Glaphyrocoris ebikh (Linnavuori, 1984)

Distribution of the studies area: Siirt, Host plant: Pistachio (Matocq and Özgen, 2010)

Hallodapus pseudoconcolor (Linnavuori, 1984):

Distribution of the studies area: Siirt, Host plant: Pistachio (Matocq and Özgen, 2010)

Halticus asperulus (Horvath, 1889)

Distribution of the studies area: Gaziantep, Host plant: Meadow pasture (Önder et al., 2006)

Halticus luteicollis (Panzer, 1805)

Distribution of the studies area: Gaziantep, Host plant: Meadow pasture (Lodos et al., 2003; Önder et al., 2006)

Harpocera thoracica (Fallén, 1807)

Distribution of the studies area: Gaziantep, Host plant: Meadow pasture, *Quercus* sp. (Lodos et al., 2003; Önder et al., 2006)

Heterotoma meriopterum (Scopoli, 1763)

Distribution of the studies area: Diyarbakır, Host plant: Forest area, Meadow pasture (Önder et al., 2006)

Horistus orientalis (Gmelin, 1790)

Distribution of the studies area: Diyarbakır, Host plant: Vineyard area (Özgen, 2012)

Linoceraea lunigera (Horvath, 1913)

Distribution of the studies area: Gaziantep, Host plant: Agricultural area, *Juglans regia* (Lodos et al., 2003; Önder et al., 2006)

Liocoris tripustulatus (Fabricius, 1781)

Distribution of the studies area: Gaziantep, Host plant: *Medicago sativa*, Umbelliferous plants, *Matricaria* sp, *Urtica* sp., Weeds (Lodos et al., 2003)

Lygus gemellatus gemellatus (Herrich-Schaeffer, 1835)

Distribution of the studies area: Siirt, Host plant: Pistachio (Matocq and Özgen, 2010)

Macrolophus caliginosus (Wagner, 1950)

Distribution of the studies area: Diyarbakır, Gaziantep, Mardin, Host plant: Agricultural area, Light trap, Meadow pasture (Lodos et al., 2003; Önder et al., 2006)

Macrolophus nubilus (Herrich-Schäffer, 1835)

Distribution of the studies area: Adıyaman, Diyarbakır, Gaziantep, Mardin, Siirt, Şanlıurfa, Host plant: Agricultural area, Light trap, Meadow pasture, Tobacco, Vegetables, *Vitex agnus castus* (Önder and Adıgüzel, 1979; Karaat, 1986; Ölmez and Ulusoy, 2002; Lodos et al., 2003; Önder et al., 2006)

Macrotylus herrichi (Reuter, 1873)

Distribution of the studies area: Diyarbakır, Gaziantep, Mardin, Host plant: Agricultural area, Meadow pasture, Weeds (Lodos et al., 2003; Önder et al., 2006)

Macrotylus perdictus (Kritshenko, 1938)

Distribution of the studies area: Gaziantep, Mardin, Host plant: Meadow pasture, Weeds (Lodos et al., 2003; Önder et al., 2006)

Macrotylus weberi (Wagner, 1976)

Distribution of the studies area: Gaziantep, Host plant: Weeds (Lodos et al., 2003; Önder et al., 2006)

Macrolophus pygmaeus (Rambur, 1839)

Distribution of the studies area: Siirt, Host plant: Pistachio (Matocq and Özgen, 2010)

Maurodactylus albidus (Kolenati, 1845)

Distribution of the studies area: Diyarbakır, Host plant: Light trap (Önder and Adıgüzel, 1979)

Megacoelum infusum (Herrich-Schäffer, 1837)

Distribution of the studies area: Gaziantep, Mardin, Host plant: *Amygdalus* sp., Meadow pasture, Woodland (Lodos et al., 2003; Önder et al., 2006)

Megacoelum pulchricorne (Reuter, 1880)

Distribution of the studies area: Gaziantep, Host plant: Agricultural area, Meadow pasture (Önder et al., 2006)

Megalocoleus bifidus (Wagner, 1973)

Distribution of the studies area: Gaziantep, Host plant: Meadow pasture (Önder et al., 2006)

Megalocoleus lunula (Fieber, 1861)

Distribution of the studies area: Gaziantep,

Host plant: *Lens esculenta*, *Matricaria* sp., Meadow pasture, Weeds (Lodos et al., 2003; Önder et al., 2006)

Megalocoleus molliculus (Fallén, 1807)

Distribution of the studies area: Diyarbakır, Şanlıurfa, Host plant: Meadow pasture (Önder et al., 2006)

Monosynamma bohemani (Fallén, 1829)

Distribution of the studies area: Diyarbakır, Şanlıurfa, Host plant: Woodland (Önder et al., 2006)

Nanopsallus carduella (Horvath, 1888)

Distribution of the studies area: Gaziantep, Siirt, Host plant: *Carduus* sp., Light trap, Meadow pasture, Pistachio (Önder and Adıgüzel, 1979; Lodos et al., 2003; Önder et al., 2006; Matocq and Özgen, 2010)

Oncotylus anatolicus (Wagner, 1969)

Distribution of the studies area: Gaziantep, Host plant: Meadow pasture, Weeds (Lodos et al., 2003; Önder et al., 2006)

Oncotylus setulosus (Herrich-Schäffer, 1839)

Distribution of the studies area: Diyarbakır, Gaziantep, Host plant: Light trap, Meadow pasture, *Sinapis* sp., Weeds (Önder and Adıgüzel, 1979; Lodos et al., 2003; Önder et al., 2006)

Oncotylus viridiflavus (Goeze, 1778)

Distribution of the studies area: Southeastern Anatolia Region, Host plant: Meadow pasture (Önder et al., 2006)

Orthocephalus rhyaropus Fieber, 1864

Distribution of the studies area: Diyarbakır, Host plant: Meadow pasture (Önder et al., 2006)

Orthocephalus saltator (Hahn, 1831)

Distribution of the studies area: Gaziantep, Mardin, Host plant: Agricultural area, Meadow pasture, Weeds (Lodos et al., 2003; Önder et al., 2006)

Orthocephalus tenuicornis (Mulsant & Rey, 1852)

Distribution of the studies area: Gaziantep,

Şanlıurfa, Host plant: *Lens esculenta*, *Matricaria* sp., Meadow pasture, Weeds (Lodos et al., 2003; Önder et al., 2006)

Orthonotus cylindricollis (Costa, 1852)

Distribution of the studies area: Mardin, Host plant: Meadow pasture (Önder et al., 2006)

Orthonotus fraudatrix (Reuter, 1904)

Distribution of the studies area: Gaziantep, Host plant: Meadow pasture, *Medicago sativa* (Lodos et al., 2003; Önder et al., 2006)

Orthops kalmii (Linnaeus, 1758).

Distribution of the studies area: Diyarbakır, Host plant: Light trap (Önder and Adıgüzel, 1979)

Orthotylus cupressi Reuter, 1883

Distribution of the studies area: Gaziantep, Host plant: Light trap, Meadow pasture (Lodos et al., 2003; Önder et al., 2006)

Orthotylus flavosparsus (Sahlberg, 1842)

Distribution of the studies area: Diyarbakır, Host plant: Light trap (Önder and Adıgüzel, 1979)

Orthotylus (Parapachylops) junipericola balcanicus (Josifov, 1974)

Distribution of the studies area: Siirt, Host plant: Pistachio (Matocq and Özgen, 2010)

Orthotylus nassatus (Fabricius, 1787)

Distribution of the studies area: Mardin, Host plant: Agriculture and forest areas (Önder et al., 2006)

Pachylops bicolor (Douglas & Scott, 1865)

Distribution of the studies area: Gaziantep, Host plant: *Juglans regia*, Meadow pasture (Lodos et al., 2003; Önder et al., 2006)

Phytocoris flammula Reuter, 1875

Distribution of the studies area: Gaziantep, Host plant: Meadow pasture (Önder et al., 2006)

Phytocoris irroratus Linnavuori, 1965

Distribution of the studies area: Mardin, Host plant: Meadow pasture (Önder et al., 2006)

Phytocoris loralis Wagner, 1976

Distribution of the studies area: Diyarbakır,
Host plant: Meadow pasture (Önder et al., 2006)

Phytocoris pilifer Reuter, 1880

Distribution of the studies area: Gaziantep,
Host plant: Agricultural area, Meadow pasture
(Önder et al., 2006)

Phytocoris pinihalepensis Lindberg, 1948

Distribution of the studies area: Gaziantep,
Host plant: Forest area, Meadow pasture (Önder
et al., 2006)

Phytocoris tiliae (Fabricius, 1776)

Distribution of the studies area: Gaziantep,
Host plant: Agricultural and Forest areas,
Meadow pasture (Önder et al., 2006)

Piezocranum corvinum Puton, 1895

Distribution of the studies area: Gaziantep,
Host plant: Meadow pasture (Önder et al., 2006)

Pilophorus angustulus Reuter, 1888

Distribution of the studies area: Gaziantep,
Host plant: Forest area (Önder et al., 2006)

Pilophorus clavatus (Linnaeus, 1767)

Distribution of the studies area: Gaziantep,
Host plant: Meadow pasture (Önder et al., 2006)

Piecoris lituratus Fr.

Distribution of the studies area: Southeastern
Anatolia Region, Host plant: Olive (Kaplan et al.,
2011)

Pithanus marshalli Douglas & Scott, 1868

Distribution of the studies area: Gaziantep,
Host plant: Meadow pasture (Önder et al., 2006)

Placochilus seladonicus (Fallén, 1807)

Distribution of the studies area: Diyarbakır,
Host plant: Meadow pasture (Önder et al., 2006)

Plagiognathus albipennis (Fallén, 1829)

Distribution of the studies area: Gaziantep,
Host plant: *Medicago sativa*, Meadow pasture
(Lodos et al., 2003; Önder et al., 2006)

Plagiognathus bipunctatus Reuter, 1883

Distribution of the studies area: Adıyaman,
Diyarbakır, Gaziantep, Siirt, Host plant: *Juglans
regia*, *Lens esculenta*, Light trap, *Matricaria* sp.,
Olea europaea, Meadow pasture, Pistachio,
Weeds (Bingöl, 1978; Önder and Adıgüzel, 1979;
Lodos et al., 2003; Matocq and Özgen, 2010)

Plagiognathus chrysanthemi (Wolff, 1804)

Distribution of the studies area: Diyarbakır,
Gaziantep, Şanlıurfa, Host plant: Agricultural and
Forest areas, *Matricaria* sp., Meadow pasture
(Lodos et al., 2003; Önder et al., 2006)

Plagiognathus fulvipennis (Kirschbaum, 1856)

Distribution of the studies area: Diyarbakır,
Gaziantep, Şanlıurfa, Host plant: Agricultural area,
Juglans regia, Light trap, Meadow pasture,
Sideritis sp. (Önder and Adıgüzel, 1979; Lodos et
al., 2003; Önder et al., 2006)

Plagiognathus raphani Wagner, 1963

Distribution of the studies area: Diyarbakır,
Gaziantep, Host plant: Light trap, *Matricaria* sp.,
Meadow pasture, *Urtica* sp. (Önder and Adıgüzel,
1979; Lodos et al., 2003; Önder et al., 2006)

Platyporus dorsalis Reuter, 1890

Distribution of the studies area: Diyarbakır,
Gaziantep, Host plant: *Medicago sativa* L.,

Onobrychis sativa Lam., *Vicia sativa* L. (Bingöl,
1978)

Polymerus cognatus (Fieber, 1858)

Distribution of the studies area: Adıyaman,
Batman, Diyarbakır, Gaziantep, Mardin, Siirt,
Şanlıurfa, Şırnak Host plant: Legume and forage
crops, *Medicago sativa* L., *Vicia sativa* L., Wheat
(Önder and Adıgüzel, 1979; Akkaya, 1995; Lodos
et al., 2003; Önder et al., 2006)

Polymerus vulneratus (Panzer, 1806)

Distribution of the studies area: Adıyaman,
Batman, Diyarbakır, Gaziantep, Mardin, Siirt,
Şanlıurfa, Şırnak Host plant: Legume and forage
crops, *Medicago sativa* L., Pistachio, *Vicia sativa*
L., Wheat (Önder and Adıgüzel, 1979; Akkaya,

1995; Matocq and Özgen, 2010)

Pronotropis longicornis Reuter, 1900

Distribution of the studies area: Gaziantep, Host plant: Meadow pasture (Önder et al., 2006)

Psallus ancorifer (Fieber, 1858)

Distribution of the studies area: Diyarbakır, Gaziantep, Host plant: *Amygdalus* sp., Light trap, *Rubus* sp., Weeds (Önder and Adıgüzel, 1979; Lodos et al., 2003)

Psallus lepidus Fieber, 1858

Distribution of the studies area: Diyarbakır, Host plant: Light trap (Önder and Adıgüzel, 1979)

Psallus oleae Wagner, 1963

Distribution of the studies area: Southeastern Anatolia Region, Host plant: Olive (Kaplan et al., 2011)

Psallus varians cornutus Wagner, 1943

Distribution of the studies area: Diyarbakır, Mardin, Host plant: Agriculture Plant (Maral, 2012)

Pseudoloxops coccineus (Meyer-Dür, 1843)

Distribution of the studies area: Adıyaman, Batman, Diyarbakır, Gaziantep, Mardin, Siirt, Şanlıurfa, Host plant: Light trap, Pistachio (Günaydın, 1978; Önder and Adıgüzel, 1979; Bolu, 2002)

Pseudoloxops sangrudanus Linnavuori, 2006

Distribution of the studies area: Siirt, Host plant: Pistachio (Matocq and Özgen, 2010)

Stenodema calcaratum (Fallén, 1807)

Distribution of the studies area: Diyarbakır, Gaziantep, Host plant: Light trap, Poaceous plants (Önder and Adıgüzel, 1979; Lodos et al., 2003)

Stenodema turanicum Reuter, 1904

Distribution of the studies area: Adıyaman, Batman, Diyarbakır, Gaziantep, Mardin, Siirt, Şanlıurfa, Host plant: Light trap, Maize, Pistachio, Pomegranate (Önder and Adıgüzel, 1979; Şimşek, 1988; Matocq and Özgen, 2010)

Sthenarus pollinosus Horvath, 1905

Distribution of the studies area: Mardin, Host plant: Meadow pasture (Önder et al., 2006)

Sthenarus roseri (Herrich-Schäffer, 1838)

Distribution of the studies area: Diyarbakır, Host plant: Forest area (Önder et al., 2006)

Stictopleurus riveti Royer, 1923

Distribution of the studies area: Adıyaman, Batman, Diyarbakır, Gaziantep, Mardin, Siirt, Şanlıurfa, Şırnak Host plant: Legume and forage crops (Akkaya, 1995; Önder et al., 2006)

Stictopleurus pictus (Fieber, 1861)

Distribution of the studies area: Adıyaman, Batman, Diyarbakır, Gaziantep, Mardin, Siirt, Şanlıurfa, Şırnak Host plant: Legume and forage crops (Akkaya, 1995)

Taylorilygus pallidulus (Blanchard, 1852)

Distribution of the studies area: Diyarbakır, Host plant: Light trap (Önder and Adıgüzel, 1979)

Trigonotylus ruficornis (Geoffroy, 1785)

Distribution of the studies area: Diyarbakır, Gaziantep, Siirt, Host plant: Light trap, Pistachio, poaceous plants, *Triticum sativa*, weeds (Önder and Adıgüzel, 1979; Lodos et al., 1984; Önder et al., 2006; Matocq and Özgen, 2010; Gözüaçık, 2012)

Trigonotylus pulchellus (Hahn, 1834)

Distribution of the studies area: Diyarbakır, Gaziantep, Siirt, Host plant: Light trap, Rocky and sandy areas, Pistachio, *Triticum sativa*, *Vitis vinifera*, Weeds (Önder and Adıgüzel, 1979; Lodos et al., 2003; Önder et al., 2006; Matocq and Özgen, 2010)

Tuponia ayasensis Wagner, 1963

Distribution of the studies area: Siirt, Host plant: Pistachio (Matocq and Özgen, 2010)

Tuponia lethierryi Reuter, 1875

Distribution of the studies area: Gaziantep, Host plant: *Tamarix* sp. (Lodos et al., 2003)

Tuponia eckerleini orientalis Wagner, 1955

Distribution of the studies area: Gaziantep,

Host plant: Meadow and pasture (Önder et al., 2006)

Tuponia orientalis Wagner, 1955

Distribution of the studies area: Gaziantep,
Host plant: *Tamarix* sp. (Lodos et al., 2003)

Tuponia seidenstückeri Wagner, 1955

Distribution of the studies area: Gaziantep,
Host plant: *Tamarix* sp. (Lodos et al., 2003)

Tuponia unicolor (Scott, 1872)

Distribution of the studies area: Diyarbakır,
Host plant: Light trap (Önder and Adıgüzel, 1979)

Yotvata pulcherrima Linnavuori, 1984

Distribution of the studies area: Siirt, Host
plant: Pistachio (Matocq and Özgen, 2010)

Zanchius alatanus Hoberlandt, 1955

Distribution of the studies area: Adıyaman,
Diyarbakır, Mardin, Siirt, Şanlıurfa, Host plant:
Cotton, Light trap (Önder and Adıgüzel, 1979;
Özpinar and Yücel, 2002)

Heteropterans regularly cause a wide variety and large number of problems for humans at times on a catastrophic scale. The 37,000 described species of this suborder including many pests, disease transmitters, and nuisances exist worldwide, inflicting damage on crops, forests, orchards, and human life. But, many true bugs are important predators of insect pests and mites. Mirids that feed on delphacid planthopper eggs have been used successfully in classical biological control programs. Other zoophagous heteropterans, mostly aquatic and semiaquatic, are economically important natural enemies because they feed, in part, on blood-sucking Diptera, especially mosquito larvae and. Biological control programs have to take into account that some of these predacious species are cannibalistic, some may damage crops, or may feed on beneficial arthropods such as pollinators and spiders. Heteroptera can be serious crop pests, harmful to humans, or can be valuable as biological control agents.

REFERENCES

- Akkaya, A., 1995. Güneydoğu Anadolu Bölgesinde Baklagil Yem Bitkilerinde Entomolojik Sorunlar ve Çözüm Önerileri. *GAP Bölgesindeki Bitki Koruma Sorunları ve Çözüm Önerileri Sempozyumu Bildirileri*, pp. 304-316, Şanlıurfa, Türkiye.
- Anonymous, 2003. Measuring biodiversity for conservation. *The Royal Society*, London. 65 pp.
- Aukema, B., Rieger, C., Rabitsch, W., 2013. Catalogue of the Heteroptera of the Palaearctic Region. Vol. 6. Supplement. Amsterdam, the Netherlands: *Netherlands Entomological Society*, 629 pp.
- Bingöl, M. C., 1978. Güneydoğu Anadolu Bölgesinde Kültür Yem Bitkilerinde (Yonca: *Medicago sativa* L., Korunga: *Onobrychis sativa* Lam., Fiğ: *Vicia sativa* L.) Zarar Yapan Miridae ve Curculionidae Familyalarına Ait Böcek Türleri, Tanınmaları ve Zararları Üzerinde Araştırmalar. Diyarbakır Bölge Zirai Mücadele Araştırma Enstitüsü (Basılmamış uzmanlık Tezi), 80 pp.
- Bolu, H., 2002. Güneydoğu Anadolu Bölgesi Antepfıstığı Alanlarındaki Böcek ve Akar Faunasının Saptanması. *Türkiye Entomoloji Dergisi*, 26 (3): 197-208.
- Bolu, H., Çınar, M., Özgen, İ., 2005. Diyarbakır, Elazığ, Mardin Bademlerinde Zararlı ve Yararlı Böcek Türlerinin Belirlenmesi ve Önemli Türlerin Populasyon Değişimleri Üzerinde Araştırmalar. Tubitak Proje No: TOGTAG-2886. 93 pp.
- Büyük, M., Özpinar, A., 1999. Diyarbakır İli Kavun ve Karpuz Ekim Alanlarında Zararlı *Aphis gossypii* Glover (Homoptera: Aphididae) ve Predatörlerinin Populasyon Gelişimi Üzerinde Bir Araştırma. *Türkiye IV. Biyolojik Mücadele Kongresi Bildirileri*, pp. 249-258, Kahramanmaraş, Türkiye.
- Büyük, M., 2008. Güneydoğu Anadolu Bölgesi Pamuk Ekim Alanlarındaki Avcı Böceklerden *Orius* spp. (Hemiptera: Anthocoridae)'nin Populasyon Gelişiminin Belirlenmesi, En Yaygın Türün Biyolojik Özellikleri ve Bazı Pestisitlerin Bunlara Etkileri. Ç.Ü. Fen Bilimleri Enstitüsü, Bitki Koruma Anabilim Dalı, Doktora Tezi, 138 pp.
- Büyük, M., Kazak, C. 2010. Avcı böcek *Orius albidipennis* (Reuter) (Hemiptera: Anthocoridae)'in laboratuvar koşullarında bazı biyolojik özellikleri. *Türkiye Biyolojik Mücadele Dergisi*, 1 (2): 109-117.
- Çelik, M.Y., 1981. Gaziantep ve Çevresinde Antep Fıstıklarında Psylloidea'ya Bağlı Önemli Zararlı Türlerin Tanınmaları Yayılışları, Konukçuları, Kısa Biyolojileri ve Doğal Düşmanları Üzerinde Araştırmalar. Araştırma Eserleri Serisi, 51: 1-107.
- Erwin, T.L., 1982. Tropical forests: their richness in Coleoptera and other arthropod species. *Coleopterists Bulletin*, 36: 74-75.
- Erwin, T.L., 1991. How many species are there? *Revisited Conservation Biology*, 5: 1-4.
- Gaston, K.J. 1991. The magnitude of global insect species richness. *Conservation Biology*, 5: 283-296.
- Göven M.A., Efil, L. 1994. Dicle Vadisi Pamuk Alanlarında Zararlı Yeşilkurt (*Heiothis armigera* Hübn.) (Lepidoptera: Noctuidae)' un Doğal Düşmanları ve Etkinlikleri Üzerinde Araştırmalar. *Türkiye III. Biyolojik Mücadele Kongresi*, 25-28 Ocak, pp. 449-457 İzmir,

- Türkiye.
- Göven, M.A. 1995. Güneydoğu Anadolu Bölgesi Pamuk Ekim Alanlardaki Zararlılar İle İlgili Sorunlar ve Çözüm Önerileri. *GAP Bölgesindeki Bitki Koruma Sorunları ve Çözüm Önerileri Sempozyumu Bildirileri*, pp. 282-295 Şanlıurfa, Türkiye.
- Göven, M.A., Karaat, Ş. Yılmaz, T., 1995. Güneydoğu Anadolu Bölgesi Pamuk Alanlarında Önemli Yararlı Türlerden Biri Olan *Campylomma diversicornis* (Heteroptera: Miridae)'in Bazı Biyolojik Özellikleri Üzerinde Araştırmalar. *Türkiye Entomoloji Dergisi*, 19 (4): 259-266.
- Göven, M.A., Gümü, S., 1998. Diyarbakır (Bismil) İli Pamuk Alanlarında Zararlı Pamuk Çizgili Yaprakkurdu [*Spodoptera exigua* (Hüb.)] (Lep.: Noctuidae)'nin Doğal Düşmanları Üzerinde Bir Gözlem. *Bitki Koruma Bülteni*, 34 (3-4): 117-120.
- Gözüaçık, C., 2012. Karacadağ'ın Entomolojik Açısından Önemi. Karacadağ. Grafik Tasarım Baskı Uzman matbacılık ve Ciltleme, İstanbul, 463: 330-339.
- Groombridge, B., 1992. Global Biodiversity: Status of the Earth's Living Resources. Chapman Hall, London, 624 pp.
- Günaydın, T., 1978. Güneydoğu Anadolu Bölgesinde Antepfıstıklarında Zarar Yapan Böcek Türleri, Tanınmaları, Yayılışları ve Ekonomik Önemleri Üzerinde Araştırmalar, pp.106.
- Kaplan, C., Büyük, M., Eren, S., 2011. Güneydoğu Anadolu Bölgesi zeytin bahçelerinde saptanan zararlı ve faydalı böcek türleri. *Bitki Koruma Bülteni*, 51(3): 267-275.
- Karaat, Ş. 1986. Doğu ve Güneydoğu Anadolu Bölgelerinde Tütün (*Nicotianat tabacum* L.)'de Zararlı Olan Böcek Türleri, Tanınmaları Yayılış Alanları ve Zararları Üzerinde Araştırmalar. *Diyarbakır Zirai Mücadele Araştırma Enstitüsü Araştırma Eserleri Serisi*, 4: 26-34.
- Karaat, Ş., Göven, M.A., Mart, C., 1986(1). Güneydoğu Anadolu Bölgesinde Bazı Yabancı Otların Zararına Yaşayan Böcek Türleri Üzerinde İlk İncelemeler. *Türkiye I. Biyolojik Mücadele Kongresi Bildirileri*, 12-14 Şubat, pp.186, Adana, Türkiye.
- Karaat, Ş., Göven, M.A., Mart, C., 1986(2). Güneydoğu Anadolu Bölgesinde Pamuk Ekim Alanlarında Yararlı Türlerin Genel Durumları. *Türkiye I. Biyolojik Mücadele Kongresi Bildirileri*, 12-14 Şubat, pp. 162 Adana, Türkiye.
- Karaat, Ş., Göven, M.A., Mart, C., 1990. Güneydoğu Anadolu Projesi Pamuk Alanlarında *Campylomma diversicornis* Reut. (Het.: Miridae)'in Genel Durumu. *Uluslararası Biyolojik Mücadele Sempozyumu*, pp. 98.
- Lodos, N., Önder, F., Şimşek, Z., 1984. Diyarbakır(Karacadağ) da Süne (*Eurygaster integriceps* Put.) (Heteroptera: Scutelleridae)' nin Ovalara Göç Ettiği Dönemde Kışlak Böcek Faunasının Tespiti ve Süne ile Bazı Türlerin Kışlak Yerlerinden Çıkış ve Göç Etme Davranışları Üzerinde Araştırmalar. *Bitki Koruma Bülteni*, 24 (2): 75-82.
- Lodos, N., Önder, F., Adıgüzel, N., Şimşek, Z., 1984. Diyarbakır (Karacadağ)'da Süne'lerin Ovalara Göç Etmeye Başladığı Dönemde, Kışlak Böcek Faunasını Tespit ile Bazı Böcek Türlerinin Kışlak Yerlerinden Çıkış ve Davranışları Üzerinde Araştırmalar. *Türkiye Bitki Koruma Dergisi*, 8: 45-56.
- Lodos, N., Önder, F., Pehlivan, E., Atalay, R., Erkin, E., Karsavuran, Y., Tezcan, S., Aksoy, S., 2003. Faunistic Studies on Miridae (Heteroptera) of Western Black Sea, Central Anatolia and Mediterranean Regions of Turkey. Project Numbers: TOAG/336 & 502.
- Maral, H., 2012. Diyarbakır, Mardin ve Elazığ İllerinde Tarım ve Tarım dışı Alanlarındaki Ağaçlarda Bulunan Tingidae (Hemiptera) Türleri İle Bunların Parazitoid ve Predatörlerinin Saptanması ve Zararı Önemli Görülen Türlerin Biyolojisi ve Populasyon Gelişiminin Belirlenmesi. Ç.Ü. Fen Bilimleri Enstitüsü, Bitki Koruma Anabilim Dalı, Doktora Tezi, pp. 171.
- Matocq, A., Özgen, İ., 2010. A Preliminary List of Heteroptera Collected in Mardin and Siirt Provinces From South-Eastern Anatolia of Turkey (Hemiptera). *Munis Entomology & Zoology Journal*, 5: 1011-1019.
- May, R.M., 1990. How many species? *Philosophical Transactions of the Royal Society B*, 330: 292-304.
- Moore, B., Allard, G., 2008. Climate change impacts on forest health. Forest Health and Biosecurity Working Paper FBS/34E. Rome, FAO.
- Ölmez, S., Ulusoy, M.R., 2002. Diyarbakır İlinde Aphidoidea Üst Familyasına Bağlı Türlerin Predatörlerinin Saptanması. *Türkiye 5. Biyolojik Mücadele Kongresi*, pp. 237.
- Önder, F., Adıgüzel, N., 1979. Some Heteroptera Collected by Light Trap in Diyarbakır (Turkey). *Türkiye Bitki Koruma Dergisi*, 3 (1): 25-34.
- Önder, F., Karsavuran, Y., Tezcan, S., Fent, M., 2006. Türkiye Heteroptera (Insecta) Kataloğu. ISBN 975-98739-2-3.
- Özgen, İ., Karsavuran, Y., 2005. Antepfıstığı ağaçlarında zararlı *Lepidosaphes pistaciae* (Archangelskaya) (Homoptera: Diaspididae)'nin doğal düşmanlarının saptanması üzerinde araştırmalar. *Türkiye Entomoloji Dergisi*, 29 (4): 309-316.
- Özpinar, A., Yücel, A., 2002. Güneydoğu Anadolu Projesi (GAP) alanındaki pamuklarda zararlı ve avcı böcek türlerinin belirlenmesi. Türkiye 5. Biyolojik Mücadele Kongresi, 4-7 Eylül 2002, pp. 247 Erzurum, Türkiye.
- Price, P.W., 1997. Insect Ecology. John Wiley & Sons Inc. New York, pp. 874.
- Ødegaard, F., 2000. How many species of arthropods? Erwin's estimate revised, *Biological Journal of the Linnean Society*, 71: 583-597.
- Stork, N., 1997. How many species are there? *Biodiversity and Conservation*, 2: 215- 232.
- Şimşek, Z., 1988. Doğu ve Güneydoğu Anadolu Bölgelerinde Mısır ve Darılarda Zararlı Olan Böcek Türleri, Tanınmaları, Yayılışları Alanları ve Zararları Üzerinde Araştırmalar. Araştırma Eserleri Serisi, 6: 1-84.
- Türkmen, Ş., Göven, M.A., Akkaya, A., 1992. Güneydoğu Anadolu Bölgesinde Mercimek Ekim Alanlarında Bulunan Böcek Türleri ile Önem Durumlarının Tesbiti Üzerinde Çalışmalar. *Türkiye II. Entomoloji Kongresi Bildirileri*, pp. 715-724, Adana, Türkiye.
- Yanık, E., 1997. Şanlıurfa İlinde Saptanan Antepfıstığı Zararlıları, Populasyon Gelişmeleri ve Zarar Durumları. Harran Üniversitesi, Fen Bilimleri Enstitüsü, Bitki Koruma Bölümü, Yüksek Lisans Tezi, 78 pp.
- Yanık, E., Ünlü, L., Yücel, A., 2011. Avcı *Anthocoris minki*'nin Antepfıstığı Bahçelerinde Bulunan Farklı Predatör

Türler, *Campylomma lindbergi*, *Deraeocoris pallens* ve *Oenopia conglobata* ile Birlik İçi Avcılığı. Türkiye IV. Bitki Koruma Kongresi Bildirileri, 117 pp.

Yaşarakıncı, N., 1991. Güneydoğu Anadolu Bölgesinde Mercimek ve Nohut Alanlarında Zararlı Olan *Heliothis Ochs.* (Lep.: Noctuidae) Türleri ve Yayılışı Alanları;

Nohut Yeşilkurdu (*Heliothis virescens* (Hufnagel, 1766)'nın Biyolojisi, Konukçuları ve Doğal Düşmanları. Diyarbakır Zirai Mücadele Araştırma Enstitüsü Araştırma Eserler Serisi No: 8, Ankara, pp. 79.