

FAUNISTIC STUDY OF TERRESTRIAL HETEROPTERA OF ÇALDAĞ (ANKARA, TURKEY)

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ABSTRACT: In this study, 320 terrestrial Heteroptera samples were collected from Çaldağ, Ankara in 1997-1998 and 65 genera and 89 species belonging to 14 families were determined. All these species in the present study are new records for the Çaldağ Heteroptera fauna.

KEY WORDS: Heteroptera, terrestrial, fauna, Çaldağ, Ankara, Turkey.

Terrestrial Heteroptera (insecta) of Çaldağ (Ankara) have not been studied previously. According to cited references, all of 89 species are new record for Heteroptera fauna of Çaldağ (Ankara).

The aim of this study was to make a contribution to Turkish terrestrial Heteroptera fauna.

MATERIALS AND METHOD

This study is based on 320 specimens of terrestrial Heteroptera and all the specimens were collected by the second author from Çaldağ (Ankara) (Map 1) between April–August in 1997 and 1998. Specimens were collected from tragacantic steppe formation, grassy steppe formation, plantations of *Pinus nigra*, orchards and planting fields, with atrap and hand. The beetles were killed with 70% alcohol and in the laboratory were cleaned of muddy remnant on their surfaces with a small paintbrush. The beetles were identified under the stereo-microscope.

Materials have been deposited in the Gazi University Zoological Museum (=ZMGU), Ankara, Turkey.

A list of localities is given in Table 1. The ‘List of species’ gives the sampling locations for each species. The dates of sampling and total number of individuals are also noted.

Male, males, female and females encoded as M, MM, F and FF, respectively.

For some remarkable species phenologies and additional distributional notes are given. Countries have been coded, as in NILSSON (2003, 2005).

RESULTS

Family MIRIDAE

Pithanus sp.

Materials: 3FF, L3, 30.05.1998.

Individuals belonging to this genus, with the current identification key to the species level could not be identified and the types of samples related to the level necessary taxonomic work will be done after the literature study. According to our current knowledge is likely to be new taxa.

***Deraeocoris rutilus* (Herrich-Schäffer, 1838)**

Materials: Çaldağ: 1F, L1, 18.05.1997; 1F, L1, 28.05.1997; 3FF, L1, 07.08.1997; 1F, 1M, L1, 20.07.1997; 1F, L1, 25.07.1997.

Phenology: May, July, August. **Distribution in Turkey:** Aegean, Marmara and Central Anatolia regions; Burdur, Isparta, Hatay and Zonguldak (Hoberlandt, 1955; Önder, 1992; Kiyak, 1993; Önder et. al., 1984; Tuatay et. al., 1972). **Distribution in the world:** E: AL BU HU IT PL RO ST YU "Caucasus" "Transcaucasia" A: CY IS SY (Hoberlandt, 1955; Stichel, 1956).

***Oncotylus setulosus* (Herrich-Schäffer, 1837)**

Materials: 1F, L3, 08.08.1998.

Phenology: August. **Distribution in Turkey:** Central Anatolia, Eastern Anatolia, Black Sea and Marmara regions (Hoberlandt, 1955; Lodos, Önder et. al. 1978; Kiyak, 1990; Önder, 1992). **Distribution in the world:** E: "Caucasus" "Transcaucasia" A: TD "Transalai" (Hoberlandt, 1955).

***Adelphocoris bimaculicollis* (Lindberg, 1948)**

Materials: 3MM, L5, 05.07.1998; 1F, L1, 02.08.1998; 2FF, L1, 03.08.1998; 1F, L4, 08.08.1998; 2FF, L4, 20.08.1998.

Phenology: July, August. **Distribution in Turkey:** İzmir, Kahramanmaraş and Denizli (Seidenstücker, 1958; Lodos, Önder et. al., 1978). **Distribution in the world:** An endemic species is known from Anatolia.

***Megaloceroea recticornis* (Geoffroy, 1787)**

Materials: 1F, L1, 05.07.1998.

Phenology: July. **Distribution in Turkey:** Çankırı, Kırşehir, Bolu, Aydın; Antalya, Bursa, Balıkesir, Edirne, Erzurum, İstanbul, Çanakkale, İzmir, Bilecik, Kocaeli, Manisa, Sakarya (Yardı, 1990; Önder 1992). **Distribution in the world:** E: AL AU BE BU CT CZ FI FR GB GE GR HU IT NL PL RO SK ST SV SZ YU N: AG MO AM: USA CA (Yardı, 1990; Stichel, 1956).

***Notostira erratica* (Linné, 1758)**

Materials: 1M, L1, 18.08.1997.

Phenology: August. **Distribution in Turkey:** Ankara, Adana, Kayseri, Konya, Ağrı, Bilecik, Bursa, İzmir, Çankırı, Kastamonu, Yozgat, Zonguldak, Artvin, Siirt, Bayburt, Bitlis, Sivas, Erzurum, Van (Hoberlandt, 1955; Yardı, 1990; Lodos, Önder et. al., 1978). **Distribution in the world:** E: BE BU FI FR GB GE HU IT NL PL PT RO RU SP SV SZ YU "Caucasus" "Transcaucasia" N: AG EG A: IR IS MG SY WS XIN (Hoberlandt, 1955; Lodos et. al., 1978).

***Grypocoris melanopygus* (Horvath, 1905)**

Materials: 2FF, 1M, L1, 20.07.1997; 4FF, L2, 25.07.1997.

Phenology: July. **Distribution in Turkey:** Kayseri, Ankara, Beynam, Konya, Kayseri, Kastamonu, Nevşehir (Wagner, 1971; Hoberlandt, 1955; Önder, 1992; Stichel, 1956). **Distribution in the world:** An endemic species is known from Anatolia (Hoberlandt, 1955).

***Brachycoleus decolor* (Reuter, 1887)**

Materials: 2 FF, L1, 20.07.1997; 4FF, 1B, L1, 25.07.1997; 1M, L1, 07.08.1997; 1F, L4, 05.07.1998; 1F, L4, 02.08.1998.

Phenology: June and August. **Distribution in Turkey:** Central Anatolia and Aegean regions; Bilecik (Altınay, 1981; Lodos, Önder et. al., 1978). **Distribution in the world:** E: GE, SP, FR, IT, IT, SZ, AU, CZ SK, HU, YU, AL, RO, BU A: WS XIN (Stichel, 1956; Tuatay et. al., 1972).

***Liocoris tripustulatus* (Fabricius, 1781)**

Materials: 1B, L1, 07.08.1997.

Phenology: August. **Distribution in Turkey:** Mediterranean, Marmara, Black Sea, Eastern Anatolia, Central Anatolia and Southeast Anatolia regions (Hoberlandt, 1955; Kiyak, 1990, 1993; Önder, 1992; Tuatay, Kalkandelen et. al., 1972). **Distribution in the world:** E: AL AU BE BU CT DE FI FR GB GE GR HU IR IT NL NR PL PT RO SP ST YU "Caucasus" "Transcaucasia" GB, CZ SK A: IS SY WS XIN (Hoberlandt, 1955; Stichel, 1957).

***Capsodes lineolatus* (Brullé, 1832)**

Materials: 1M, L2, 24.06.1997; 1M, L1, 20.07.1997.

Phenology: June and July. **Distribution in Turkey:** Mediterranean region; Adana, Ankara (Hoberlandt, 1955; Kıyak, 1993). **Distribution in the world:** E: BE CZ FR GE GR IT MA SK SP YU N: AG EG MO A: IS SY TU (Hoberlandt, 1955; Stichel, 1956).

***Dimorphocoris distylus* (Seidenstücker, 1964)**

Materials: 1F, L4, 03.05.1998.

Phenology: May. **Distribution in Turkey:** Ankara (Wagner, 1973; Önder 1992; Çağlar, 1992). **Distribution in the world:** An endemic species is known from Anatolia (Wagner, 1973).

Family NABIDAE

***Nabis pseudoferus pseudoferus* (Remane, 1949)**

Materials: 1M, L1, 07.08.1997; 1F, L5, 01/08/1998; 1F, L2, 03/08/1998; 1M, L4, 20.08.1998.

Phenology: August. **Distribution in Turkey:** Mediterranean and Central Anatolia regions; Edirne, Elazığ (Çağlar, 1992; Yiğit and Uygun, 1982; Hoberlandt, 1955; Önder et. al., 1984; Tuatay et. al., 1972). **Distribution in the world:** E: AU AZ BU CZ FI FR GB GE IT NL PT SK SP YU A: CY IR (Stichel, 1957).

Family REDUVIIDAE

***Rhynocoris punctiventris* (Herrich-Schäffer, 1846)**

Materials: 1M, L1, 28.05.1997.

Phenology: May. **Distribution in Turkey:** Aegean region; Kocaeli, Bursa, Adana, Kahramanmaraş, Gaziantep and Elazığ (Hoberlandt, 1955; Kıyak, 1990, 1993; Çağlar, 1992; Karsavuran, 1989; Tuatay, Kalkandelen et. al., 1972). **Distribution in the world:** E: AL BU ST YU "Caucasus" "Transcaucasia" A: CY SY (Hoberlandt, 1955; Stichel, 1958).

***Coranus aegyptius* (Fabricius, 1775)**

Materials: 1F, L4, 08.04.1998.

Phenology: April. **Distribution in Turkey:** Southeastern Anatolia region; Adana, Bursa, İstanbul (Hoberlandt, 1955). **Distribution in the world:** E: AL BU FR GE GR HU IT MA PT RO SP SZ YU "Transcaucasia" "Caucasus" N: AG CI EG LB MO A: CY IR IS SY TU XIN (Hoberlandt, 1955; Stichel, 1958).

Family TINGIDAE

***Tingis grisea* (Germar, 1831)**

Materials: 1F, L3, 30.05.1998.

Phenology: May. **Distribution in Turkey:** Central Anatolia and Southeast Anatolia regions; Ankara, Diyarbakır, Çanakkale, Kayseri (Hoberlandt, 1955; Lodos, Önder, 1983). **Distribution in the world:** E: RO, RU, GE, FR, AU, ST HU, CZ SK, "Caucasus" "Transcaucasia" N: NAF A: IS SY XIN (Hoberlandt, 1955; Lodos, Önder, 1983; Stichel, 1958).

***Tingis elongata* (Fieber, 1861)**

Materials: 2FF, L3, 30.05.1998.

Phenology: May. **Distribution in Turkey:** Gaziantep (Lodos, Önder, 1983).

Distribution in the world: E: SP YU N: AG EG MO TU A: CY JO (Lodos and Önder, 1983).

***Tingis cardui cardui* (Linné, 1758)**

Materials: 1F, L2, 08.04.1998.

Phenology: April. **Distribution in Turkey:** Aegean region; Bolu, Bursa, Kastamonu, Aydın, Kocaeli, Afyon, İzmir, Ordu, Sinop Erzincan (Lodos, Önder, 1983; Hoberlandt, 1955). **Distribution in the world:** E: AL AU BE BU CZ DE FI FR GB GE GR HU IR IT NL NR PL PT RU SK SP ST SV SZ YU Scotland "Transcaucasia" N: AG CI MO TU North A: CH IR WS XIN (Lodos, Önder, 1983; Hoberlandt, 1955; Stichel, 1958).

***Catoplatus anticus anticus* (Reuter, 1880)**

Materials: 2F, 2M, L3, 30.05.1998.

Phenology: May. **Distribution in Turkey:** Aegean, Marmara and Mediterranean regions; Antalya, Afyon, Balıkesir, Bilecik, Gülpazarı, Edirne (Lodos, Önder, 1983).

Distribution in the world: E: AL GR ST A: IS LE SY (Stichel, 1958; Lodos and Önder, 1983; Hoberlandt, 1955).

Copium brevicorne* (Jakowlew, 1879)*Materials:** 1F, L3, 30.05.1998.**Phenology:** May. **Distribution in Turkey:** The distribution of this species in Turkey is not mentioned in literature. **Distribution in the world: E:** RO ST YU **A:** CY SY (Stichel, 1958).***Dictyla echii* (Schrank, 1782)****Materials:** 1M, L3, 30.05.1998.**Phenology:** May. **Distribution in Turkey:** Eastern Anatolia, Southeastern Anatolia, Marmara and Mediterranean regions; İzmir, Kütaahya, Muğla, Ordu, Samsun, Tokat, Zonguldak (Hoberlandt, 1955, Lodos, Önder et. al., 1983; Tuatay, Kalkandelen et. al., 1972). **Distribution in the world: E:** CEU GE NEU NT NR SV WEU "Caucasus" "Transcaucasia" **A:** CY IR IS SY WS XIN (Stichel, 1957; Hoberlandt, 1955).**Family BERYTIDAE*****Neides tipularius* (Linné, 1758)****Materials:** 1F, 1M, L3, 08.04.1998.**Phenology:** April. **Distribution in Turkey:** Thrace region; Kayseri, Edirne, Kars, Bingöl, Ankara, (Hoberlandt, 1955; Çağlar, 1992; Kiyak, 1993). **Distribution in the world: E:** AL AU BE BU CT CZ DE FI FR GB GE GR HU IT NL NR PL RO RU SK SP ST SV SZ YU "Transcaucasia" **A:** XIN (Hoberlandt, 1955; Stichel, 1957).**Family LYGAEIDAE*****Icus angularis* (Fieber, 1861)****Materials:** 2MM, L4, 08.04.1998.**Phenology:** April. **Distribution in Turkey:** Ankara, Niğde, Adana, Bursa, Gaziantep (Hoberlandt, 1955; Seidenstücker, 1958, 1960). **Distribution in the world: BU FR HU IT PT RO SP ST YU** "Caucasus" "Transcaucasia" **N:** AG MO **A:** TD XIN (Hoberlandt, 1955; Stichel, 1957; Seidenstücker, 1960).***Lygaeus saxatilis* (Scopoli, 1763)****Materials:** 1F, L1, 10.05.1997; 2FF, L2, 21.06.1997; 1M, L2, 24.06.1997; 1F, 1M, L5, 07.08.1997; 1F, L4, 13.08.1997; 1M, L1, 18.08.1997; 1F, L4, 08.04.1998; 2FF, L6, 01.08.1998.**Phenology:** April-June, August. **Distribution in Turkey:** Central Anatolia and Southeast Anatolia regions; Eskişehir, Kahramanmaraş, Ağrı, Erzincan, İstanbul, Kırşehir, Isparta, Gaziantep, Ankara, Çankırı, Kayseri, Konya, Nevşehir, Niğde, Yozgat, Çorum (Aysev, 1974; Lodos, Önder, 1992; Çağlar, 1992; Hoberlandt, 1955; Kiyak, 1993; Tuatay, Kalkandelen et. al., 1972). **Distribution in the world: E:** AL AU BE BU CZ FR GE GR HU IT MC NL PT RO RU SK SP ST SZ YU "Caucasus" **N:** AG EG MO TU **A:** AF CY IQ IR IS KA LE SY XIN (Aysev, 1974; Hoberlandt, 1955; Stichel, 1957).***Lygaeus equestris equestris* (Linné, 1758)****Materials:** 1F, L1, 25.07.1997; 6MM, L6, 07.08.1997; 1F, 1M, L1, 13.08.1997.**Phenology:** July and August. **Distribution in Turkey:** Aegean, Central Anatolia, Marmara, East Anatolia, West Black Sea and Eastern Mediterranean Regions; Gaziantep, Diyarbakır, (Altınayar, 1981; Lodos, Önder et. al., 1978; Önder 1992; Önder, Ünal et. al., 1984; Kiyak, 1990, 1993; Hoberlandt, 1955; Yiğit, Uygun, 1982; Çağlar, 1992; Kiyak, Çağlar, 1991; Kaya, Hincal, 1991; Tuatay, Kalkandelen et. al., 1972). **Distribution in the world: E:** AL CEA CT DE FI FR GR IT NR PL PT RU SEU SP SV UK "Transcaucasia" "Caucasus" **N:** AG EG MO TU **A:** CH CY IQ IR IS JA KA SY WS XIN (Aysev, 1974; Hoberlandt, 1955; Stichel, 1957).***Lygaeus pandurus pandurus* (Scopoli, 1763)****Materials:** 1F, L1, 28.05.1997.**Phenology:** May. **Distribution in Turkey:** Aegean, Marmara, Central Anatolia, West-Black Sea and West-Mediterranean regions; Adana, Elazığ (Aysev, 1974; Lodos, Önder et. al., 1978, 1984; Önder, 1992; Kiyak, 1990, 1993; Hoberlandt, 1955; Tuatay, Kalkandelen et. al., 1972). **Distribution in the world: E:** FR, GR, RU, IT, IT, RU, FR, SP, PT, MA, IT, SZ, AU, HU, YU, AL, BU, GR, UK "Transcaucasia" **N:** AG CI EG LB TU **A:** CY KA, IR, IQ, IS, LE, SY XIN SA (Aysev, 1974; Hoberlandt, 1955; Stichel, 1957).***Nysius ericae ericae* (Schilling, 1829)****Materials:** 1M, L3, 0.05.1998; 1M, L4, 20.08.1998.

Phenology: May and August. **Distribution in Turkey:** Ankara, Zonguldak, Bolu, Ankara, Kayseri, Nevşehir, Niğde, Yozgat (Hoberlandt, 1955; Kiyak, 1993; Önder 1992). **Distribution in the world:** E: AU AZ BE FI FR GE GR HU IT NL NR PL PT RO SP ST SV SZ YU "Caucasus" N: AG EG A: CH MG WS XIN AM: CA USA (Hoberlandt, 1955; Stichel, 1957).

***Nysius punctipennis* (Herrich-Schäffer, 1838)**

Materials: 1F, L4, 25.08.1998.

Phenology: August. **Distribution in Turkey:** Thrace, Central Anatolia and Mediterranean regions; Isparta, Edirne, Ankara, Burdur, Uşak, Kars, Ağrı, Kayseri, Nevşehir, Çorum. (Aysev, 1974; Lodos, Önder et. al., 1978; Hoberlandt, 1955; Önder, 1992; Çağlar, 1992). **Distribution in the world:** E: AU BE BU CT CZ DE FI FR GB GE GR HU IT NL NR PL RO RU SK SP ST SV SZ YU "Transcaucasia" N: AG A: CH CY MG WS XIN (Aysev, 1974; Hoberlandt, 1955; Stichel, 1957).

***Nysius helveticus* (Herrich-Schäffer, 1852)**

Materials: 1M, 2FF, L4, 20.08.1998; 1M, L4, 25.08.1998.

Phenology: August. **Distribution in Turkey:** Balıkesir, Niğde, Ankara (Lodos, Önder et. al., 1978; Kiyak, 1993). **Distribution in the world:** E: AU BE BU CT CZ DE FI FR GB GE HU IT NL NR PL RO SK SP ST SV SZ YU A: WS XIN (Stichel, 1957).

***Paranysius fraterculus* (Horvath, 1895)**

Materials: 1B, L3, 30.08.1998.

Phenology: August. **Distribution in Turkey:** Diyarbakır (Hoberlandt, 1967). **Distribution in the world:** E: AR KZ RU A: AF KI TM (Hoberlandt, 1967).

***Piocoris erythrocephalus* (Peletier&Serville, 1825)**

Materials: 1M, L4, 03.08.1998.

Phenology: August. **Distribution in Turkey:** Mediterranean, Marmara and West-Black Sea, Central Anatolia, the Aegean and Eastern Anatolia regions; Diyarbakır, Gaziantep (Aysev, 1974, 1989; Lodos, Önder et. al., 1978; Önder 1992; Kiyak, 1993; Çakır, Önder, 1990; Tuatay, Kalkandelen et. al., 1972). **Distribution in the world:** E: AL BU CZ FR GR IT PT RO RU SP ST YU "Transcaucasia" N: AG EG LB MO A: CY IQ IS LE SY XIN (Aysev, 1974, Hoberlandt, 1955; Stichel, 1957).

***Heterogaster affinis* (Herrich-Schäffer, 1835)**

Materials: 2MM, L1, 07.08.1997; 1F, L3, 30.05.1998.

Phenology: May and August. **Distribution in Turkey:** Bursa, Ankara, Çankırı, Kayseri, Adana, Nevşehir, Zonguldak (Hoberlandt, 1955; Çağlar, 1992; Önder, 1992; Yiğit, Uygun, 1982). **Distribution in the world:** E: AL AU CZ FR GE GR HU IT IT PT SK ST SZ YU "Caucasus" "Transcaucasia" N: AG MO A: XIN (Hoberlandt, 1955; Stichel, 1957).

***Ischnopeza hirticornis* (Herrich-Schäffer, 1850)**

Materials: 1M, L4, 03.08.1998.

Phenology: August. **Distribution in Turkey:** Balıkesir, Bilecik, Çanakkale, İzmir, Kırklareli, Manisa, Uşak, Ankara, Çorum, Konya, Edirne, Afyon, Adana, Erzincan (Lodos, Önder, 1978; Önder, 1982; Hoberlandt, 1955; Çağlar, 1992). **Distribution in the world:** E: AL BU FR GR IT RO SP ST YU "Transcaucasia" "Caucasus" N: AG A: CY IS SY TM XIN (Hoberlandt, 1955, Stichel, 1957).

***Ischnodemus suturalis* (Horvath, 1883)**

Materials: 1B, L3, 30.08.1998.

Phenology: August. **Distribution in Turkey:** Adana, Osmaniye, Bursa, İzmir (Seidenstückler, 1958; Hoberlandt, 1955). **Distribution in the world:** A: IS SY (Hoberlandt, 1955; Stichel, 1957).

***Megalonotus chiragra chiragra* (Fabricius, 1794),**

Materials: 1M, 1F, L1, 08.04.1998.

Phenology: April. **Distribution in Turkey:** Edirne, Afyon, İzmir (Hoberlandt, 1955). **Distribution in the world:** E: RU A: LE IS XIN (Hoberlandt, 1955).

***Rhyparochromus* sp.:**

Materials: 1M, L4, 01.08.1998; 1F, L420.08.1998.

Individuals belonging to this genus, with the current identification key to the species level could not be identified and the types of samples related to the level necessary taxonomic work will be done after the literature study. According to our current knowledge is likely to be new taxa.

***Rhyparochromus immaculatus* (Royer, 1920)**

Materials: 1M, L3, 08.04.1998; 1M, L3, 25.08.1998; 1F, L1, 03.05.1998; 1F, L1, 03.08.1998.

Phenology: April, May and August. **Distribution in Turkey:** Elazığ, Çankırı, Kayseri, Ankara (Kiyak, 1990; Önder 1992; Çağlar, 1992). **Distribution in the world:** E: AL AU BE BU CT CZ DE FR GB GE GR HU IT NL PL PT RO SK SP ST SZ YU N: AG A: SY XIN (Stichel, 1957).

***Rhyparochromus phoeniceus* (Rossi, 1794)**

Materials: 2FF, L121.06.1997; 1F, L4, 01.08.1998; 5FF, L4, 08.04.1998.

Phenology: April, June and August. **Distribution in Turkey:** Central Anatolia Region; Isparta, Kütahya, Manisa, Bolu, Çorum, Zonguldak, Edirne, Gaziantep, Kahramanmaraş, Erzurum, Muş, Diyarbakır (Lodos, Önder et. al., 1978; Hoberlandt, 1955; Kiyak, 1990; Çağlar, 1992). **Distribution in the world:** E: AL AU BE BU DE FI FR GE GR HU IT NL NR PL RO SP SV SZ YU "Caucasus" "Transcaucasia" N: MO A: CY IS SY (Stichel, 1957; Hoberlandt, 1955).

***Rhyparochromus saturnius* (Rossi, 1790)**

Materials: 1F, L3, 30.05.1998; 1F, L2, 20.08.1998.

Phenology: May and August. **Distribution in Turkey:** Elazığ, İzmir (Kiyak, 1990; Lodos, Önder et. al., 1978). **Distribution in the world:** E: BU FR IT PT SP YU "Caucasus" N: AG CI EG MO A: IS SY (Hoberlandt, 1955; Stichel, 1957).

***Rhyparochromus zarudnyi* (Jakowlew, 1905)**

Materials: 1M, L3, 08.04.1998.

Phenology: April. **Distribution in Turkey:** Ankara, Niğde, Konya, Eskişehir (Tuatay, Kalkandelen et. al., 1972; Seidenstücker, 1957). **Distribution in the world:** A: IR (Stichel, 1957; Seidenstücker, 1957).

***Boesius maritimus* (Scopoli, 1763)**

Materials: 1Fb, 1M, L1, 24.06.1997; 1F, L2, 18.08.1997; 1M, L3, 30.05.1998.

Phenology: May, June and August. **Distribution in Turkey:** Marmara and Aegean regions; Isparta, İzmir, Kastamonu, Zonguldak, Ankara, Gaziantep (Lodos et. al., 1978; Kiyak, 1990; Hoberlandt, 1955). **Distribution in the world:** E: AU CZ BE FR GB GE IT NLPL PT SK SP ST "Caucasus" "Transcaucasia" N: AG CI MO TU A: IR IS IQ TM (Stichel, 1957; Hoberlandt, 1955).

Family PYRRHOCORIDAE***Pyrhocoris apterus* (Linné, 1758)**

Materials: 4FF, 5MM, L1, 07.05.1997; 1F, L4, 20.08.1998.

Phenology: May and August. **Distribution in Turkey:** Eastern Anatolia, Central Anatolia and the Marmara Region; Adana, Aydın, Manisa (Kiyak, 1990, 1993; Hoberlandt, 1955; Ahmad, Abbas, 1986; Tuatay, Kalkandelen et. al., 1972). **Distribution in the world:** E: AL BU GE MC RO N: NAF A: CY (Kiyak, 1990; Hoberlandt, 1955; Ahmad, Abbas, 1986; Stichel, 1957).

Family STENOCEPHALIDAE***Dicranocephalus setulosus* (Ferrari, 1874)**

Materials: 1F, 1M, L1, 28.05.1997; 1F, 1M, L1, 25.07.1997; 2FF, L2, 07.08.1997.

Phenology: May, July and August. **Distribution in Turkey:** Niğde, Konya, Kayseri, Adana, Bursa, Artvin, Diyarbakır, İzmir, Kütahya, Tunceli, Kars, İzmir, Bursa (Tuatay, Kalkandelen et. al., 1972; Seidenstücker, 1960; Pehlivan, 1981; Hoberlandt, 1955). **Distribution in the world:** E: FR GR IT RO SP ST "Caucasus" "Transcaucasia" N: AG A: CY IR IS IQ SI SY (Stichel, 1957; Pehlivan, 1981; Hoberlandt, 1955).

Family COREIDAE***Coreus marginatus marginatus* (Linné, 1758)**

Materials: 1b, L3, 03.08.1998.

Phenology: August. **Distribution in Turkey:** East Anatolia, Marmara and Black Sea regions; Zonguldak, Gaziantep, Ankara, Adana, Hatay (Kiyak, 1990, 1993; Hoberlandt, 1955; Kiyak, Çağlar, 1991; Tuatay, Kalkandelen et. al., 1972). **Distribution in the world:** E: BU

GE GR MC RO RU ST "Caucasus" A: CH IQ IR IS JA SY TD WS XIN "Transalai" (Hoberlandt, 1955; Stichel, 1957).

***Phyllomorpha* sp.:**

Materials: 2FF, 1M, L5, 08.04.1998.

Individuals belonging to this genus, with the current identification key to the species level could not be identified and the types of samples related to the level necessary taxonomic work will be done after the literature study. According to our current knowledge is likely to be new taxa.

***Syromastus rhombeus* (Linné, 1767)**

Materials: 2FF, 1M, L1, 13.08.1997; 1M, L1, 18.08.1997; 1M, L3, 01.08.1998; 1F, L3, 03.08.1998.

Phenology: August. **Distribution in Turkey:** Elazığ, Edirne, Ankara, Adana, Bursa, Gaziantep, İstanbul, Artvin, Kars, İzmir (Hoberlandt, 1955; Tuatay, Kalkandelen et. al., 1972; Çağlar, 1992; Kiyak, 1990). **Distribution in the world:** E: AL AU BE BU CT CZ FI FR GB GE GR HU IT NL PL PT RO RU SK SP SV SZ YU "Transcaucasia" N: AG CI MO A: CY IQ IR SY XIN (Stichel, 1957; Hoberlandt, 1955).

***Enoplops disciger* (Kolenati, 1845)**

Materials: 1M, L3, 05.07.1998; 1F, L3, 02.08.1998.

Phenology: July and August. **Distribution in Turkey:** Central Anatolia and Eastern Anatolia regions; Diyarbakır, Adana (Altınayar, 1981; Hoberlandt, 1955; Çağlar, 1992; Kiyak, 1993; Lodos, Önder et. al., 1984; Tuatay, Kalkandelen et. al., 1972). **Distribution in the world:** E: AL BU GE MC RO ST "Caucasus" "Transcaucasia" A: IS IR SY XIN (Hoberlandt, 1955; Stichel, 1957).

***Centrocoris spiniger* (Fabricius, 1781)**

Materials: 1M, 1F, L4, 15.08.1998; 1M, L4, 20.08.1998.

Phenology: August. **Distribution in Turkey:** Edirne, Ankara, Adana, Bursa, Gaziantep, Kayseri, Konya, Artvin, Kars, İzmir, Kırşehir (Tuatay, Kalkandelen et. al., 1972; Kiyak, 1993; Hoberlandt, 1955). **Distribution in the world:** E: AL AU BU FR GR HU IT PT RO SP ST SZ YU "Caucasus" "Transcaucasia" N: AG CI LB MO A: CY IR IS SY TM XIN (Stichel, 1957; Hoberlandt, 1955).

***Centrocoris variegatus* (Kolenati, 1845)**

Materials: 1F, L6, 25.05.1997.

Phenology: May. **Distribution in Turkey:** Elazığ, Bursa, Ankara, Aydın (Hoberlandt, 1955; Kiyak, 1990; Tuatay, Kalkandelen et. al., 1972). **Distribution in the world:** E: AG AL BU EG FR GR HU IT LB MO PT RO SP ST SZ TU YU "Caucasus" "Transcaucasia" A: IS SY (Stichel, 1957; Hoberlandt, 1955).

Family ALYDIDAE

***Alydus calcaratus calcaratus* (Linné, 1758)**

Materials: 3MM, L1, 18.08.1997; 1M, L4, 20.08.1998

Phenology: August. **Distribution in Turkey:** Ankara, Adana, İzmir, Artvin, Kayseri (Pehlivan, 1981; Çağlar, 1992; Hoberlandt, 1955; Kiyak, 1993; Ural, Işık et. al., 1973). **Distribution in the world:** E: AL AU BU CT CZ DE FI FR GB GE HU IT NL NR PL PT RO SK SP ST SV SZ YU "Caucasus" N: AG MO A: MG IR XIN WS AM: CA NAM USA (Hoberlandt, 1955; Stichel, 1957).

***Camptopus tragacanthae* (Kolenati, 1845)**

Materials: 1M, L1, 18.08.1997; 1M, L4, 15.08.1998.

Phenology: August. **Distribution in Turkey:** Elazığ, İzmir, Ankara, Bursa, Kars, Eskişehir (Tuatay, Kalkandelen et. al., 1972; Hoberlandt, 1955; Pehlivan, 1981; Çağlar, 1992; Kiyak, 1990). **Distribution in the world:** E: ST "Caucasus" "Transcaucasia" A: IR TD UZ (Hoberlandt, 1955; Stichel, 1957).

***Camptopus lateralis* (Germar, 1817)**

Materials: 1F, L4, 08.08.1998; 1F, 1M, L4, 15.08.1998; 1F, 1M, L4, 20.08.1998.

Phenology: August. **Distribution in Turkey:** Central Anatolia, East Anatolia, Marmara, Mediterranean, Aegean and Southeast Anatolia and Eastern Black Sea Region (Atınayar, 1981; Kiyak, 1990, 1993; Pehlivan, 1981; Hoberlandt, 1955; Tuatay, Kalkandelen et. al., 1972). **Distribution in the world:** E: CEU CZ GE SK ST "Caucasus" "Transcaucasia" A: AF CY IQ IR IS KA TD XIN "Tansalai", (Hoberlandt, 1955; Stichel, 1957).

Family RHOPALIDAE***Stictopleurus abutilon abutilon* (Rossi, 1790)****Materials:** 1F, L1, 18.08.1997; 1M, L2, 08.04.1998.**Phenology:** April and August. **Distribution in Turkey:** Mediterranean, Central Anatolia and Thrace regions; Elazığ, Ankara, Edirne, Adana, Gaziantep, İstanbul, İzmir (Çağlar, 1992; Hoberlandt, 1995; Kiyak, 1990, 1993; Tuatay et. al., 1972). **Distribution in the world:** **E:** AL AU BU CT CZ FI FR GB GE GR HU IT NL NR PL PT RO RU SK SP ST SV SZ YU “Caucasus” **N:** AG EG LB **A:** CY IQ IS MR SY TD WS XIN “Transalpai” (Hoberlandt, 1955; Stichel, 1957).***Corizus hyoscyami hyoscyami* (Linné, 1758)****Materials:** 1F, 1M, L1, 25.07.1997.**Phenology:** July. **Distribution in Turkey:** Mediterranean, Aegean and Eastern Anatolia regions; Amasya, Artvin, Edirne, Bursa, Ankara, Konya, Diyarbakır (Pehlivan, 1981; Kiyak, 1990, 1993; Hoberlandt, 1955; Lodos, Önder et. al., 1984; Tuatay, Kalkandelen et. al., 1972). **Distribution in the world:** **E:** AL BU GE GR MC RO ST “Caucasus” “Transcaucasia” **N:** NAF **A:** CH CY IR IS IQ SY TM XIM (Hoberlandt, 1955; Stichel, 1957).***Liorhyssus hyalinus* (Fabricius, 1794)****Materials:** 1F, L1, 30.05.1998; 1F, L2, 05.07.1998.**Phenology:** May and July. **Distribution in Turkey:** Eastern Anatolia, Central Anatolia, Southeastern Anatolia Region; Adana, Artvin, Kocaeli, Denizli (Kiyak, 1990; Hoberlandt, 1955; Kaya, Hincal, 1991; Tuatay, Kalkandelen et. al., 1972). **Distribution in the world:** **E:** AL BU GE MC RO RU ST “Transcaucasia” **N:** NAF **A:** CH CY IQ IR IS JA XIN SY TD WS “Transalpai” (Hoberlandt, 1955; Stichel, 1957).***Rhopalus parumpunctatus* (Schilling, 1829)****Materials:** 1F, 2MM, L1, 24.06.1997; 1F, L2, 2MM, 25.07.1997; 1F, 2MM, L1, 07.08.1997; 1M, L2, 18.08.1997; 1M, L4, 08.04.1998; 1F, L3, 01.08.1998; 1M, L4, 15.08.1998.**Phenology:** April and Jun-August. **Distribution in Turkey:** Southeastern Anatolia, Central Anatolia, Eastern Anatolia, Aegean, Marmara and Mediterranean regions (Pehlivan, 1981; Kiyak, 1990; Çağlar, 1992; Hoberlandt, 1955). **Distribution in the world:** **E:** AU BE CT DE FI FR GB GE GR IT NL NR PL PT ST SV SZ “Caucasus” “Transcaucasia” **N:** AG CI MO **A:** CY IR TD WS XIN (Pehlivan, 1981; Hoberlandt, 1955; Stichel, 1957).***Rhopalus maculatus maculatus* (Fieber, 1836)****Materials:** 1F, L4, 15.08.1998.**Phenology:** August. **Distribution in Turkey:** Bursa, İstanbul, Gaziantep, Adana, Adıyaman, Artvin, Diyarbakır, Gümüşhane, Siirt, Tokat (Pehlivan, 1981; Hoberlandt, 1955). **Distribution in the world:** **E:** AL AU BE BU CT CZ DE FI FR GB GE GR HU IT NL NR PL PT RO SK SP ST SV SZ YU “Caucasus” **N:** AG MO **A:** IQ IR JA KA SY WS (Hoberlandt, 1955; Stichel, 1957).***Rhopalus rufus* (Schilling, 1829)****Materials:** 1F, L1, 07.08.1997; 1M, L5, 05.07.1998.**Phenology:** July and August. **Distribution in Turkey:** Adana, Ankara, Trakya (Çağlar, 1992). **Distribution in the world:** **E:** AU FR GE HU ST (Hoberlandt, 1955; Stichel, 1957).***Macevethus lutheri* (Wagner, 1953)****Materials:** 1F, L1, 22.05.1997; 1F, L3, 30.05.1998; 1M, L4, 20.08.1998.**Phenology:** May and August. **Distribution in Turkey:** Aegean and Marmara Region; Mersin, Ankara (Pehlivan, 1981; Çağlar, 1992; Kiyak, 1993). **Distribution in the world:** **E:** GR IT ST (Pehlivan, 1981; Stichel, 1957).***Macevethus caucasicus* (Kolenati, 1845)****Materials:** 1F, L2, 18.08.1997.**Phenology:** August. **Distribution in Turkey:** Adıyaman, Afyon, Ağrı, Aydın, Balıkesir, Bilecik, Bitlis, Tatvan, Burdur, Bursa, İzmir, Çanakkale, Denizli, Diyarbakır, Edirne, Elazığ, İzmir, Hakkari, Isparta, Kahramanmaraş, Kars, Kırklareli, Kocaeli, Kütahya, Manisa, Mardin, Muğla, Nevşehir, Siirt, Tekirdağ, Tunceli, Uşak, Ankara, Diyarbakır (Çağlar, 1992; Pehlivan, 1981; Lodos, Önder et. al., 1984). **Distribution in the world:** **E:** AL BU CEU CZ FR GR HU IT MA PT RO SEU SK SP ST SZ YU **N:** AG CI LB MO TU NAF **A:** CY IR SY XIN (Pehlivan, 1981; Stichel, 1957).***Brachycarenum languidus* (Horvath, 1891)****Materials:** 1F, L1, 24.06.1997.

Phenology: June. **Distribution in Turkey:** Kars, Elazığ, Iğdır (Pehlivan, 1981; Kıyak, 1990; Hoberlandt, 1955) **Distribution in the world:** E: ST “Transcaucasia” A: TM (Pehlivan, 1981; Hoberlandt, 1955; Stichel, 1957).

***Chorosoma schillingi* (Schummel, 1829)**

Materials: 1M, L1, 24.06.1997; 1F, 1M, L5, 18.08.1997; 1M, L2, 05.07.1998; 1F, L3, 01.08.1998; 1F, L4, 20.08.1998.

Phenology: June-August. **Distribution in Turkey:** Yozgat, Eskişehir, Adana, Adıyaman, Afyon, Bilecik, Bitlis, Çanakkale, Denizli, Diyarbakır, Burdur, Elazığ, Erzurum, Hakkari, Isparta, Kırıkkale, Kütahya, Mardin, Muş, Siirt, Urfa, Uşak, Van, Ankara, Edirne, İçel, Iğdır, Gaziantep, Konya, Kayseri, Bursa (Hoberlandt, 1955; Altınayar, 1981; Pehlivan, 1981; Çağlar, 1992). **Distribution in the world:** E: AL AU BE BU CT CZ DE FR GB GE GR HU NL PL PT RO SK SP ST SV YU “Caucasus” “Transcaucasia” N: NAF A: CY IS SY XIN (Hoberlandt, 1955; Stichel, 1957; Pehlivan, 1981).

Family SCUTELLERIDAE

***Eurygaster maura* (Linné, 1758)**

Materials: 1F, L1, 22.05.1997; 1M, L1, 28.05.1997; 1F, L1, 1B, 21.06.1997; 1F, L1, 23.06.1997, 3FF, 1M, L2, 04.07.1997; 3MM, L2, 07.08.1997; 2MM, L2, 13.08.1997; 2FF, 2MM, L1, 18.08.1997; 1B, L4, 05.07.1998; 1F, L4, 02.08.1998.

Phenology: May-August. **Distribution in Turkey:** Central Anatolia, Mediterranean, Aegean, Marmara, the Black Sea, Eastern Anatolia and Southeastern Anatolia Region (Altınayar, 1981; Lodos, Önder et. al., 1978; Önder 1992; Çağlar, 1992; Kıyak, Çağlar, 1991; Hoberlandt, 1955; Kıyak, 1993; Tuatay, Kalkandelen et. al., 1972). **Distribution in the world:** E: AU BE BU CT CZ DE FI FR GB GE HU IR IT NL NR PL PT SK SP ST SV SZ YU “Caucasus” “Transcaucasia” N: MO A: CH IS JA KA SY XIN (Hoberlandt, 1955; Stichel, 1957).

***Eurygaster integriceps* (Puton, 1881)**

Materials: 1F, L5, 25.08.1998.

Phenology: August. **Distribution in Turkey:** Mediterranean, Eastern Anatolia, Central Anatolia, Marmara and Southeastern Anatolia regions; Rize (Altınayar, 1981; Kıyak, 1990, 1993; Hoberlandt, 1955; Lodos, Önder et. al., 1984; Tuatay, Kalkandelen et. al., 1972). **Distribution in the world:** E: AL BU GR IT RO ST YU “Caucasus” “Transcaucasia” A: AF CY IR IS SY TD TM XIN (Hoberlandt, 1955; Stichel, 1957).

***Eurygaster testudinaria* (Geoffroy, 1758)**

Materials: 1F, 04.07.1986 (Leg. Kıyak).

Phenology: June. **Distribution in Turkey:** Zonguldak, Ankara, Amasya, Artvin, Bartın (Kıyak, 1993; Abbas, 1990; Lodos, Önder et al, 1982). **Distribution in the world:** E: AL AU BE BU CZ DE FI FR GE GR HU IT KZ NL NR PL PT RO RU SK SP SV SZ UK YU N: EG A: AF CH IR JA KA SY WS XIN (Abbas, 1990).

***Psacasta marmottani* (Puton, 1887)**

Materials: 1F, L1, 07.08.1997; 1F, L3, 02.08.1998; 1M, L2, 08.08.1998.

Phenology: August. **Distribution in Turkey:** Ankara (Kıyak, 1993). **Distribution in the world:** E: AG CI EG MO TU A: SY TM XIM (Stichel, 1957).

***Odontotarsus robustus* (Jakowlew, 1883)**

Materials: 1F, L5, 03.08.1998.

Phenology: August. **Distribution in Turkey:** Afyon, Aydın, Balıkesir, Bilecik, Bursa, Çanakkale, Denizli, Edirne, Isparta, İzmir, Kurklareli, Muğla, Sakarya, Uşak, Ankara, Konya (Hoberlandt, 1955; Lodos, Önder et. al., 1978). **Distribution in the world:** E: AL BU FR GR HU IT RU SP ST YU N: EG A: CY IR IS SY TM XIN (Stichel, 1957).

Family PENTATOMIDAE

***Ventocoris trigonus* (Krynicky, 1871)**

Materials: 1F, L4, 30.05.1998.

Phenology: May. **Distribution in Turkey:** Aegean, Marmara, Central Anatolia and the Eastern Mediterranean Region; Gaziantep (Lodos, Önder et. al., 1978; Önder 1992; Hoberlandt, 1955; Tuatay, Kalkandelen et. al., 1972). **Distribution in the world:** E: AL BU CEU CZ GE MC RO RU SK ST “Transcaucasia” A: CY IR IS SY XIN (Hoberlandt, 1955; Stichel, 1957).

***Tarisa osmanica* (Hoberlandt, 1956)**

Materials: 1F, L2, 26.06.1997; 1M, L1, 13.08.1997; 1F, L1, 18.08.1997; 1F, L1, 02.08.1998.

Phenology: June and August. **Distribution in Turkey:** Kayseri, Ankara, Kırşehir, Nevşehir, Yozgat (Önder 1992; Hoberlandt, 1955; Stichel, 1957). **Distribution in the world:** An endemic species is known from Anatolia (Hoberlandt, 1955).

***Vilpianus galii* (Wolff, 1802)**

Materials: 1F, L4, 02.08.1998.

Phenology: August. **Distribution in Turkey:** Edirne (Hoberlandt, 1955), Ankara (Kiyak and Ün, 1999). **Distribution in the world:** E: AL AU BU CZ FR HU IT PL PT RO SK SP ST YU "Transcaucasia" A: CY SY XIN (Hoberlandt, 1955; Stichel, 1957).

***Ancyrosoma leucogrammes* (Gallén, 1789)**

Materials: 2FF, 1M, L1, 13.08.1997; 3FF, 2MM, L1, 18.08.1997; 1M, L4, 02.08.1998; 1M, L4, 15.08.1998.

Phenology: August. **Distribution in Turkey:** Aegean, Marmara and Central Anatolia regions; Artvin, Elazığ, Burdur, Isparta, Adana (Lodos, Önder et. al., 1978; Önder 1992; Kiyak, 1990; Çağlar, 1992; Yiğit, Uygun, 1982; Hoberlandt, 1955; Tuatay, Kalkandelen et. al., 1972). **Distribution in the world:** E: AL BU CEU CZ GE MC RO RU SEU "Transcaucasia" N: EG NAF A: CY IR IS IQ SY TD (Hoberlandt, 1955; Stichel, 1957).

***Graphosoma lineatum* (Linné, 1758)**

Materials: 1M, L4, 03.08.1998; 1F, L4, 20.08.1998.

Phenology: August. **Distribution in Turkey:** Marmara and the Aegean Region; Isparta (Lodos, Önder et. al., 1978). **Distribution in the world:** E: BU SEU N: NAF A: IR (Stichel, 1957).

***Derula flavoguttata* (Mulsant & Rey, 1856)**

Materials: 1M, L5, 08.08.1998.

Phenology: August. **Distribution in Turkey:** Ankara (Çağlar, 1992). **Distribution in the world:** E: BU GR RO ST (Stichel, 1957).

***Mustha spinosula* (Lefebvre, 1831)**

Materials: 1M, L1, 25.07.1997.

Phenology: July. **Distribution in Turkey:** Ankara, Aydın, Bursa, Çanakkale, Edirne, Isparta, İzmir, Manisa, Muğla, Uşak, Elazığ, Konya, Gaziantep, Mardin, Kahramanmaraş, Artvin, İstanbul, Adana, Eskişehir, Muş (Çağlar, 1992; Hoberlandt, 1955; Lodos, Önder et. al., 1978; Önder 1992; Kiyak, 1990; Tuatay, Kalkandelen et. al., 1972). **Distribution in the world:** E: AL BU GR ST YU "Caucasus" "Transcaucasia" N: EG A: IR IS IQ SY TM (Hoberlandt, 1955; Stichel, 1957).

***Sciocoris luteolus* (Fieber, 1861)**

Materials: 1F, L2, 25.08.1998.

Phenology: August. **Distribution in Turkey:** Kayseri, Kırşehir, Ankara, Hatay, Adana (Lodos et al., 1982; Çağlar, 1992; Hoberlandt, 1955). **Distribution in the world:** E: IT A: IS SY (Stichel, 1957; Hoberlandt, 1955).

***Sciocoris pictus* (Wagner, 1959)**

Materials: 1M, L1, 24.06.1997; 1F, L2, 25.08.1998.

Phenology: June and August. **Distribution in Turkey:** Ankara, Hatay (Çağlar, 1992; Seidenstücker, 1958). **Distribution in the world:** A: SY (Seidenstücker, 1958).

***Aelia glebana* (Ferrari, 1874)**

Materials: 1M, L2, 24.06.1997; 1M, L2, 25.07.1997; 4FF, 1M, L1, 07.08.1997; 1F, 2MM, L4, 18.08.1997; 1F, L3, 03.05.1998; 2MM, L1, 02.08.1998; 1F, L4, 20.08.1998.

Phenology: May-August. **Distribution in Turkey:** Elazığ (Kiyak, 1990). **Distribution in the world:** E: AL AU BU CT CZ DE FR GE GR HU IT PL PT RO RU SK SP ST SV SZ YU A: CY IR IQ SY (Stichel, 1957).

***Aelia albiovittata* (Fieber, 1868)**

Materials: 1F, L1, 28.05.1997; 1M, L1, 24.06.1997; 2MM, L1, 04.07.1997; 1M, L3, 30.05.1998; 1M, L4, 02.08.1998; 1F, L4, 03.08.1998.

Phenology: May-August. **Distribution in Turkey:** Mediterranean, Central Anatolia and Aegean regions; Ankara, Çanakkale, İzmir, Manisa, Konya, Adana, Bursa, Gaziantep (Altınayar, 1981; Lodos et al. 1978; Hoberlandt, 1955; Tuatay et. al., 1972; Alkan, 1948; İyriboz, 1970). **Distribution in the world:** A: SY (CH, Lodos, 1963).

***Carpocoris fuscispinus* (Bohemán, 1851)**

Materials: 1M, L1, 21.06.1997; 1F, L3, 02.08.1998.

Phenology: June and August. **Distribution in Turkey:** Central Anatolia and Eastern Anatolia regions; Muğla, Isparta, Kastamonu, Gaziantep, Sakarya (Altınayar, 1981; Lodos, Önder et. al., 1978; Önder 1992; Kiyak, 1990; Hoberlandt, 1955; Tuatay, Kalkandelen et. al., 1972). **Distribution in the world:** E: AL AU BU CT CZ DE FI FR GE HU IT NL PL PT RO RU SK SP ST SV SZ “Caucasus” A: AF CH IQ IS JA MG SY TD “Transalpai” (Hoberlandt, 1955; Stichel, 1957).

***Carpocoris mediterranus mediterranus* (Tamanini, 1958)**

Materials: 1M, L1, 22.05.1997; 1F, L1, 03.08.1998; 1M, L1, 15.08.1998.

Phenology: April, May and August. **Distribution in Turkey:** Ankara, Konya (Önder et. al., 1992; Çağlar, 1992). **Distribution in the world:** E: AL BU CZ GR HU IT RO SK SP ST N: EG A: CY IR IQ SY (Stichel, 1957).

***Carpocoris melanocerus* (Mulsant & Rey, 1852)**

Materials: 1F, 3MM, 25.04.1995 (Leg. Kiyak).

Phenology: April. **Distribution in Turkey:** Elazığ, Ankara, Çankırı, Çorum, Niğde, Kars (Kiyak, 1990; Lodos et. al., 1982). **Distribution in the world:** E: AL AU BU CZ FR GE HU IT SK SP ST SZ YU “Caucasus” “Transcaucasia” (Stichel, 1957; Hoberlandt, 1955)

***Carpocoris pudicus* (Poda, 1761)**

Materials: 2FF, 2MM, L1, 22.05.1997; 1M, L1, 04.07.1997; 1F, L1, 2MM, 25.07.1997; 1F, L2, 02.08.1998; 1M, L1, 13.08.1998; 1F, L2, 20.08.1998.

Phenology: May, June and August. **Distribution in Turkey:** Central Anatolia, the Mediterranean, Marmara, East Anatolia Region; Gaziantep, Çorum, Kastamonu (Kiyak, 1990, 1993; Önder 1992; Çağlar, 1992; Hoberlandt, 1955; Tuatay et. al., 1972). **Distribution in the world:** E: AL AU BU CZ FR GE GR HU IT PL SK SZ YU “Caucasus” “Transcaucasia” N: EG A: AF CY IQ IR IS SY XIN (Hoberlandt, 1955; Stichel, 1957).

***Codophila varia* (Fabricius, 1787)**

Materials: 1F, L1, 18.08.1997.

Phenology: August. **Distribution in Turkey:** Central Anatolia, Marmara and Aegean regions; Elazığ, Erzurum, Edirne, Zonguldak, Adana, Burdur (Lodos, Önder et. al., 1978, 1984; Önder 1992, Kiyak, 1990, 1993; Tuatay et. al., 1972). **Distribution in the world:** E: AL BU GE GR MC RO ST “Caucasus” “Transcaucasia” N: NAF A: CY IQ IR IS SY TD TM XIN “Transalpai” (Hoberlandt, 1955; Stichel, 1957).

***Codophila humulata* (Goeze, 1778)**

Materials: 1F, L1, 13.08.1997.

Phenology: August. **Distribution in Turkey:** Edirne, Ağrı, İstanbul, Yalova, Ankara, Isparta, Kırklareli, Çankırı, Eskişehir, Kırşehir, Kayseri, Nevşehir, Bursa, Diyarbakır, Niğde, Elazığ, Manisa (Lodos, Önder et. al., 1978; Önder 1992; Kiyak, 1990; Çağlar, 1992; Hoberlandt, 1955). **Distribution in the world:** AL AU BU CT CZ FR GE GR HU IT PL RO SK ST SZ YU “Caucasus” “Transcaucasia” N: AG A: IQ IR SY TM WS XIN (Stichel, 1957; Hoberlandt, 1955).

***Eurydema ornatum* (Linné, 1758)**

Materials: 1F, L1, 25.07.1997; 1F, 2MM, L1, 07.08.1997 1F, L1, 13.08.1997; 3FF, L3, 01.08.1998; 1F, 1M, L5, 08.08.1998; 1F, 1M, L2, 25.08.1998.

Phenology: June and August. **Distribution in Turkey:** Western Black Sea, Aegean, Marmara and Central Anatolia regions; Burdur, Adana, Elazığ, Ağrı (Lodos, Önder et. al., 1978; Önder 1992; Kiyak, 1990, 1993; Yiğit, Uygun, 1982; Hoberlandt, 1955; Önder, Ünal et. al., 1984; Atalay et. al., 1990; Tuatay, Kalkandelen et. al., 1972). **Distribution in the world:** E: “Caucasus” “Transcaucasia” N: EG A: CAC CY IR IQ IS SY XIN (Hoberlandt, 1955).

***Eurydema fieberi* (Schummel, 1836)**

Materials: 1F, L1, 28.05.1997; 1F, 1M, L1, 21.06.1997; 1F, 1M, L2, 24.06.1997; 1F, L1, 20.07.1997; 1F, L2, 18.08.1997.

Phenology: April-August. **Distribution in Turkey:** Burdur, Kütahya, Kastamonu, Kırşehir, Konya, Nevşehir, Niğde, Ankara, Erzurum, Adana, Kahramanmaraş, Bursa (Kiyak, 1993; Lodos, Önder et. al., 1978; Hoberlandt, 1955). **Distribution in the world:** E: AR AU BU CZ FR GEGR HU IT PT SK SP ST SZ YU “Caucasus” “Transcaucasia” N: AG MO A: IR IS (Hoberlandt, 1955; Stichel, 1957).

***Piezodorus lituratus* (Fabricius, 1794)**

Materials: 1M, L1, 2.08.1998; 1F, L4, 20.08.1998; 1M, L4, 25.08.1998.

Phenology: August. **Distribution in Turkey:** Marmara, Aegean and Eastern Anatolia regions; Burdur, Elazığ, Bolu, Çorum, Kastamonu, Nevşehir, Zonguldak, Sinop, Bartın, Eskişehir, Gaziantep, Kahramanmaraş (Lodos, Önder et. al., 1978; Kıyak, 1990; Kıyak, Çağlar, 1991; Hoberlandt, 1955; Kıyak, 1993). **Distribution in the world:** E: AL AU BE BU CT CZ FR GB GE GR HU IR IT NL PL PT RO SP ST SV SZ YU, N: AG MO TU A: CY IR SY XIN (Stichel, 1957; Hoberlandt, 1955).

***Dolycoris baccarum* (Linné, 1758)**

Materials: 1F, L1, 21.06.1997; 1F, L1, 25.07.1997; 1F, 4MM, L1, 07.08.1997; 1B, L1, 02.08.1998.

Phenology: June-August. **Distribution in Turkey:** Central Anatolia, Marmara, Black Sea, Aegean and Eastern Mediterranean regions; Gaziantep, Diyarbakır (Altnayar, 1981; Lodos, Önder et. al., 1978, 1984; Önder, 1992; Kıyak, 1990, 1993; Çağlar, 1992; Yiğit, Uygun, 1982; Kıyak, Çağlar, 1991; Hoberlandt, 1955; Tuatay, Kalkandelen et. al., 1972). **Distribution in the world:** E: AL BU GE GR MC RO "Caucasus" "Transcaucasia" A: CY IQ IS JA SY (Hoberlandt, 1955; Stichel, 1957).

***Rhaphigaster nebulosa* (Poda, 1761)**

Materials: 1F, 25.04.1985 (leg. Kıyak).

Phenology: April. **Distribution in Turkey:** Marmara and Aegean regions; Erzincan, Bolu, Kastamonu, Zonguldak, Ağrı (Hoberlandt, 1955; Çağlar, 1992; Yiğit, Uygun, 1982; Önder, 1992). **Distribution in the world:** E: AL AU BE BU CT CZ FR GE GR HU IT NL PL PT RO RU SK SP SZ YU N: MO A: AF CY IQ IR IS MG SY XIN (Stichel, 1957; Hoberlandt, 1955).

Family CYDNIDAE

***Sehirus bicolor* (Linné, 1758)**

Materials: 1F, L1, 28.05.1997.

Phenology: May. **Distribution in Turkey:** Gaziantep, Ankara, İstanbul, Kocaeli, Denizli, Bahıkesir, Kırklareli (Lodos, Önder, 1980; Hoberlandt, 1955). **Distribution in the world:** E: AU BE BU CT CZ DE FI FR GB GE HU IT NL NR PL PT SK SP ST SZ YU "Caucasus" "Transcaucasia" N: AG MO A: IS SY WS XIN (Lodos and Önder, 1980; Hoberlandt, 1955).

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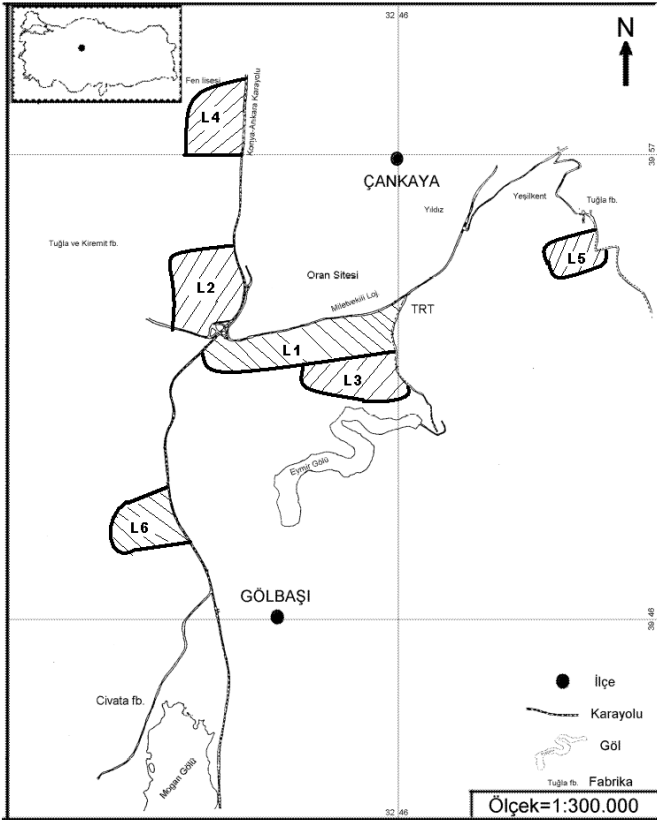
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Map 1. Research areas and collecting locality.

Table 1. Sampling localities in Çaldağ-Ankara.

Locality Code	Definition of Locality	Habitat
L1	Between West of the building of TRT Genel Müdürlüğü and South of Milletvekilleri Lojmanları.	On plants species, on the ground and among the leaf litters of <i>P. nigra</i> in the forest of <i>Pinus nigra</i> .
L2	North and East of brick and tile factory.	On plants species in forest opening.
L3	North-East of Eymir Lake.	On plants species among fruit trees.
L4	East and South of Fen Lisesi.	Tragacantic steppe.
L5	South-West of Yeşilkent brick factory.	Grassy steppe.
L6	Between South of brick and tile factory and North of Gölbaşı town.	Side and in wheat fields.