

Contribution to the study of the genus *Anthaxia* (subgenus *Anthaxia* s. str.) Eschscholtz, 1829 (Coleoptera, Buprestidae) of Turkey*

Şebnem KARAMAN** Serdar TEZCAN**

Summary

This paper provides faunistic information about 39 species of *Anthaxia* Eschscholtz, 1829 (subgenus *Anthaxia* s. str.) cited from Turkey. The distribution of the species collected from the different parts of Turkey are given with attached maps.

This paper also contains a survey of the literature on the species of *Anthaxia* (subgenus *Anthaxia*) in the Turkish fauna.

Key words: *Anthaxia* (subgenus *Anthaxia*), Buprestidae, Turkey, fauna.

Anahtar sözcükler: *Anthaxia* (altcins *Anthaxia*), Buprestidae, Türkiye, fauna.

Introduction

Anthaxia Eschscholtz, 1829 (subgenus *Anthaxia* s. str.) fauna of Turkey is quite rich and the studies of Bily (1977, 1980, 1984) have made great contribution to that.

Although Lodos and Tezcan (1992) cited 69 *Anthaxia* species from Turkey, the number of identified species along with the new studies and original descriptions have been increased.

* This study is a part of M. Sc. Thesis.

** Plant Protection Department, Agricultural Faculty, Ege University, 35100 Bornova, Izmir, Turkey

Alınış (Received): 27.12.1996

The aim of this study is to make contribution to some faunistical records of *Anthaxia* (subgenus *Anthaxia* s. str.) fauna of Turkey and to present the current situation to the taxonomists.

In this study, information about general distribution and the distribution in Turkey for each species is given. Information is also given about localities, period of collection, plants on which the specimens were collected from the labels of material. But the names of plants on all labels may not be the real hosts of larvae. The real host plants, if they are available and known, are also given referring to the previous works.

To clarify the understanding of *Anthaxia* (subgenus *Anthaxia* s. str.), previous faunistic records and the localities of material studied in this paper are given on maps of Turkey. Data from the literature is shown as an empty square, circle etc., data from the material studied is shown as covered square, circle etc.

Most of the material treated in this work have been collected from the different parts of Turkey by the specialists of Department of Plant Protection, Faculty of Agriculture, University of Ege, Bornova, Izmir, Turkey. *Anthaxia* specimens are presently being preserved in the collections of the same department. Material preserved in the collection of National Museum, Praha, Czech Republic are shown with asteriks.

Results

As a result of this study, totally 39 species belonging to *Anthaxia* (subgenus *Anthaxia* s. str.) were evaluated.

List of species:

Anthaxia adiyamana Svoboda, 1994

General distribution: Israel and Turkey (Svoboda, 1994; Bily, 1997).

Distribution in Turkey: Svoboda (1994) described this species from Adiyaman.

Material studied: Authors have no representatives of this species.

Biological note: Svoboda (1994) collected the adults on *Astragalus* sp.

Anthaxia amasina amasina Daniel, 1903

General distribution: Caucasus, Greece, Iran, Iraq, Turkey and Yugoslavia (Bily, 1980).

Distribution in Turkey: It was listed from Izmir (Ödemiş-Bozdağ) by Bodemeyer (1900) and later on reported from Turkey without exact locality by Winkler (1924-1932) and Richter (1949).

Material studied: Antalya (Central province), Konya (Karapınar). 3 specimens.

Biological note: Adults were collected on weeds at the beginning of July and under *Astragalus* sp. at the end of April. Bily (1980) cited *Astragalus* spp. as host plants of this species.

***Anthaxia anatolica anatolica* Chevrolat, 1837**

General distribution: Armenia, Azerbaidzhan, Bulgaria, Georgia, Greece and Turkey (Bily, 1997).

Distribution in Turkey: Fairmaire (1866) reported it from Izmir (Ödemiş-Kızılcaavlu) and Sahlberg (1912-1913) cited it from Denizli (Babadağ) and Izmir (Selçuk-Efes).

Material studied: Izmir (Karaburun-Mordoğan, Selçuk-Efes, Torbalı, Urla), Manisa (Soma), Uşak (Banaz). 34 specimens.

Biological note: Adults were collected from the mid of April up to the mid of June on umbelliferous weeds. Cobos (1986), Gobbi (1986) and Curletti (1994) gave *Ferula communis*, *F. nidiflora*, *Hippomarathrum bocconeii*, *H. pterochloenum*, *Magydaris tomentosa*, *Scorodosma foetida* and *Thapsia villosa* as host plants of this species.

***Anthaxia berytensis* Abeille, 1895**

General distribution: Israel, Syria and Turkey (Bily, 1997).

Distribution in Turkey: It was reported from the southeastern parts of Turkey by Bily (1977).

Material studied: Adana (Yumurtalık), Diyarbakır (Central province), Gaziantep (Central province), Manisa (Kula), Mardin (Midyat), Şanlıurfa (Ceylanpınar), Uşak (Eşme). 7 specimens.

Biological note: Adults were collected from the beginning of May up to the mid of June on *Rosa* sp., *Medicago sativa* and weeds. *Carduus* spp., *Cirsium* spp. and *Eryngium* spp. are host plants of this species.

***Anthaxia bicolor* Falderman, 1835**

General distribution: Armenia, Azerbaidzhan, the Balcans, Georgia, Iran, Iraq, Israel, Syria, Turkey, Turkmenistan and southern parts of Ukraine (Bily, 1997).

Distribution in Turkey: It was reported from Izmir (Menemen) by Sahlberg (1912-1913) and cited from Turkey without precise locality by Richter (1949) and listed from Izmir (Bornova) by Gül-Zümreoğlu, (1972). Recently Tozlu (1997) reported it from Artvin (Yusufeli) and Erzurum (Ispir).

Material studied: Adana (Düziçi), Antalya (Central province), Izmir (Bayındır, Bornova, Güzelbahçe, Kemalpaşa, Menderes-Gümlüdü, Narlıdere, Urla), Kahramanmaraş (Andırın). 12 specimens.

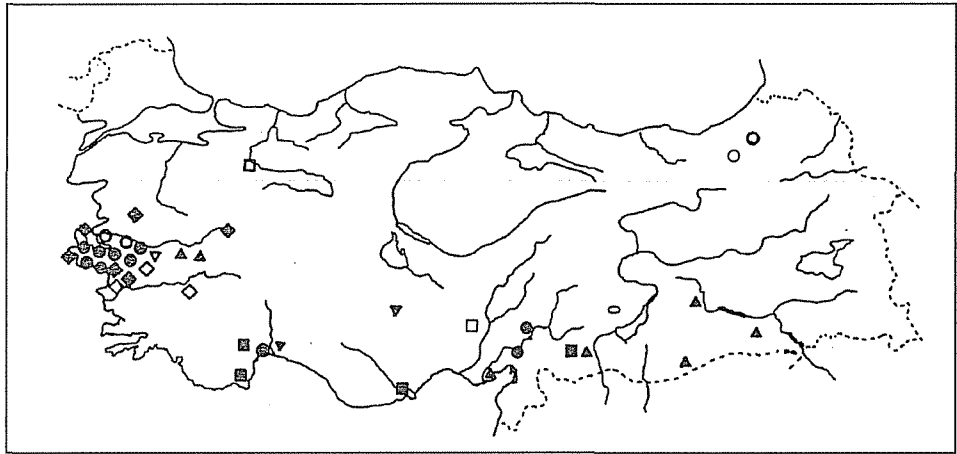


Figure 1. Distribution of *Anthaxia adiyamana* ○ / ⊙; *A. amasina amasina* ▽ / ▿; *A. anatolica anatolica* ◇ / ◆; *A. berytensis* △ / ▲; *A. bicolor* ○ / ⊙ and *A. brevis brevis* □ / ◻.

Biological note: Adults were collected from the first week of April up to the first week of June on *Citrus* sp., *Salix* sp., *Quercus ilex* and mostly on weeds. Bily (1979) collected the adults on the plants from the family of Compositae. Bily reared this species from *Fraxinus* sp. (in litt.)

Anthaxia brevis brevis Gory & Laporte, 1839

General distribution: Crete, Cyprus, Greece, Israel, Syria, Turkey and southern parts of Ukraine (Bily, 1997).

Distribution in Turkey: It was cited from Bilecik by Boderneyer (1900) and reported from Adana (Bulgar Mountain) by Sahlberg (1912-1913).

Material studied: Antalya (Central province, Kumluca), Gaziantep (Central province), İçel (Silifke). 5 specimens.

Biological note: Adults were collected from the mid of April up to the end of May on *Pistacia terebinthus*, *Thymus* sp., *Mentha* sp. and weeds. *Pistacia* spp. are the host plants of this species.

Anthaxia deaurata senicula (Schrank, 1789)

General distribution: The Balkans, Caucasus and Turkey (Bily, 1982 a).

Distribution in Turkey: It was reported from Izmir (Ödemiş-Kızılcaavlu) under the name of *A. aurulenta* by Fairmaire (1866) and cited from Turkey without precise locality by Heyden et al. (1906).

Material studied: Ankara (Elmadağ), Bilecik (Gölpazarı), Izmir (Menderes-Gümüldür, Ödemiş). 7 specimens.

Biological note: Adults were collected in April and May on *Ulmus* sp., *Crataegus* sp. and weeds. Fairmaire (1866), Bily (1979), Cobos (1986), Gobbi (1986) and Curletti (1994) gave *Fraxinus* sp., *Prunus persica*, *Salix alba*, *Ulmus effusa*, *U. laevis*, *U. minor* as host plants of this species.

***Anthaxia discicollis discicollis* Gory & Laporte, 1839**

General distribution: Armenia, Azerbaidzhan, Bosnia, Bulgaria, Georgia, Greece, Macedonia and Turkey (Bily, 1997).

Distribution in Turkey: Its exact locality is not known. Probably occurring in the northern parts of Turkey.

Material studied: Authors have no representatives of this species.

***Anthaxia discicollis kanaanita* Obenberger, 1912**

General distribution: Syria and Eastern Turkey (Bily, 1997).

Distribution in Turkey: Heyden et al. (1906) and Richter (1949) cited it from Turkey without giving exact locality. Bily (1984) reported it from Adana (Saimbeyli), Içel (Uzuncaburç) and Toros Mountains.

Material studied: Adana (Pozanti*, Saimbeyli*) Adıyaman (Gölbaşı*), Antalya (Elmalı*, Termessos*), Hatay (Reyhanlı), Içel (Namrun*, Silifke, Uzuncaburç*), Izmir (Karaburun-Mordoğan, Ödemiş-Bozdağ), Kırklareli (Vize), Muğla (Bodrum), Uşak (Banaz). 26 specimens.

Biological note: Adults were collected from the beginning of July on *Juniperus* sp., *Cupressus sempervirens*, *Quercus* sp., *Rosa* sp., and weeds. Bily (1984) collected the larvae of this species from *Juniperus* sp.

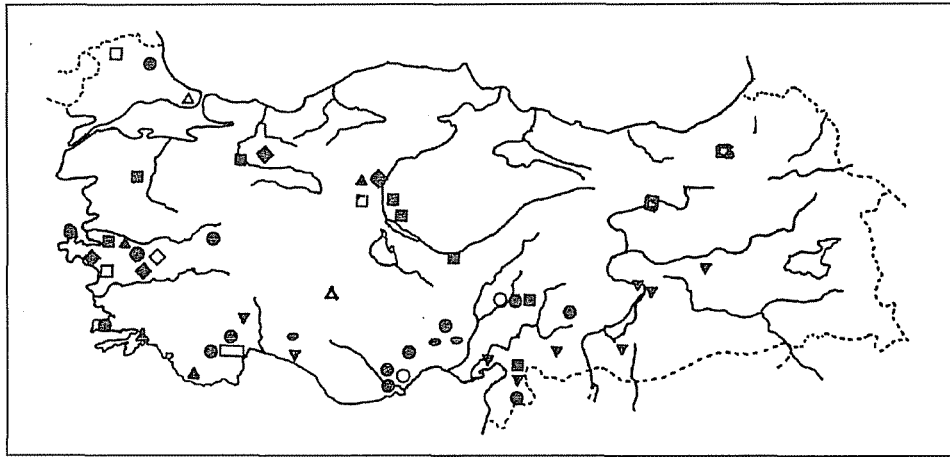


Figure 2. Distribution of *Anthaxia deaurata senicula* \diamond/\diamond ; *A. discicollis kanaanita* \circ/\circ ; *A. fulgurans* Δ/Δ ; *A. ghazi* ∇/∇ ; *A. herbertschmidti* \square/\square ; *A. hypomelaena* \square/\square and *A. irregularis* \circ/\circ .

***Anthaxia fulgurans* (Schrank, 1789)**

General distribution: Armenia, Austria, the Balkans, Czech Republic, France, Germany, Hungary, Italy, Slovakia, Spain, Switzerland and Ukraine (Bily, 1997).

Distribution in Turkey: Although it was not reported from Turkey by Bily (1997), it was listed from Konya by Bodemeyer (1900). Later on Schimitschek (1953) reported it from Istanbul (Bahçeköy).

Material studied: Ankara (Central province), Antalya (Kaş), Izmir (Bornova) and Muğla (Marmaris). 4 specimens.

Biological note: Adults were collected from the last week of May up to the end of first week of June on weeds. Gobbi (1986) and Curletti (1994) gave ***Cornus mas*, *Malus sylvestris mitis*, *Prunus domestica*, *P. spinosa*, *Salix purpurea* and *Cerasus avium*** as host plants of this species.

***Anthaxia funerula funerula* (Illiger, 1803)**

General distribution: Armenia, Austria, the Balkans, Czech Republic, France, Georgia, Germany, Hungary, Italy, Portugal, Slovakia, Spain, Switzerland and Ukraine (Bily, 1997).

Distribution in Turkey: Richter (1949) reported it from Turkey without exact locality. Probably occurring in the western parts of Turkey.

Material studied: Authors have no representatives of this species.

***Anthaxia ghazi* Obenberger, 1938**

General distribution: Israel, Syria and Turkey (Bily, 1997).

Distribution in Turkey: Bily (1973) reported it from southern parts of Turkey. Its exact locality is not known.

Material studied: Adana (Misis*), Antalya (Side*) Burdur (Bucak*) Diyarbakır (Çermik*, Çüngüş*, Lice). Gaziantep (Central province*), Hatay (Hassa*) Şanlıurfa (Central province*). 9 specimens.

Biological note: Adults were collected in June. No valide information on its host plants has been found.

***Anthaxia hackeri* Frivaldszki, 1884**

General distribution: Austria, Bulgaria, Czech Republic, Hungary, Romania, Slovakia and Turkey (Bily, 1997).

Distribution in Turkey: This species is reported from Turkey without giving exact locality by Richter (1949) and Bily (1982 a).

Material studied: Authors have no representatives of this species.

Biological note: Curletti (1994) gave ***Ulmus laevis* and *U. minor*** as host plants of this species.

***Anthaxia herbertschmidtii* Novak, 1992**

General distribution: Cyprus and Turkey (Bily, 1997).

Distribution in Turkey: This species is described from the material collected from Antalya (Termessos) (Novak, 1992).

Material studied: Authors have no representatives of this species.

***Anthaxia hypomelaena* (Illiger, 1803)**

General distribution: Algeria, the Balcans, Crete, France, Italy, Morocco, Portugal, southern parts of Russia, Spain and Turkey (Bily, 1997).

Distribution in Turkey: It was recorded from Izmir (Selçuk-Efes) by Sahlberg (1912-1913) and cited from Ankara (Beynam) and Edirne by Obenberger (1953). It was reported from the northern and western parts of Turkey by Bily (1977) and recently cited from Erzincan and Erzurum (Ispir) by Tozlu (1997).

Material studied: Balıkesir (Central province), Bilecik (Central province), Hatay (Hassa), Izmir (Bornova), Kahramanmaraş (Göksun), Kırıkkale (Keskin), Kırşehir (Kaman), Nevşehir (Ürgüp). 12 specimens.

Biological note: Adults were collected from the end of April up to the beginning of July on weeds. *Cirsium* sp., *Eryngium campestre*, *E. maritimum* were reported as host plants of this species by Gobbi (1986) and Curletti (1994).

***Anthaxia irregularis* Abeille, 1909**

General distribution: Syria and Turkey (Bily, 1997).

Distribution in Turkey: Its exact locality is not cited.

Material studied: Adana (Pozantı*, Fındıklı*), Antalya (Akseki*). 3 specimens.

***Anthaxia kervillei* Thery, 1939**

General distribution: Western parts of Turkey (Bily, 1997). Endemic.

Material studied: Izmir (Bornova). 1 specimen.

Biological note: Adult was collected at the beginning of May on weeds.

***Anthaxia kurdistanica* Obenberger, 1912**

General distribution: Iraq and Turkey (Bily, 1997).

Material studied: Authors have no representatives of this species.

***Anthaxia lucens lucens* Küster, 1852**

General distribution: Crete, Greece, Italy and Turkey (Bily, 1997).

Distribution in Turkey: This species was cited from Izmir (Gediz River) by Sahlberg (1912-1913) and de Kerville (1939).

Material studied: Aydın (Karacasu, Kuşadası), Balıkesir (Central province, Edremit-Altınova), Bilecik (Central province, Söğüt), Çanakkale (Central province-Truva), Denizli (Central province, Pamukkale, Acıpayam), Isparta (Central province), İçel (Silifke-Uzuncahisar), Izmir (Central province, Bornova, Güzelbahçe, Karaburun-Mordoğan, Kemalpaşa, Menderes-Gümüldür, Seferihisar, Selçuk), Kütahya (Tavşanlı), Manisa (Central province, Turgutlu). 53 specimens.

Biological note: Gobbi (1986) cited this species on *Amygdalus communis* and some umbelliferous plants. Adults were collected from the beginning of April up to the end of July on *Amygdalus communis*, *Prunus domestica*, *Rosa* sp., *Nerium oleander* and mostly on weeds.

Anthaxia lucens phoenica Ganglbauer, 1882

General distribution: Syria and Eastern Turkey (Bily, 1997).

Distribution in Turkey: Its exact locality is not known.

Material studied: Adıyaman (Gerger*), Diyarbakır (Çermik - Sinek köy*). 2 specimens.

Anthaxia manca (Linnaeus, 1767)

General distribution: Europe (exc. Britain and Scandinavia), Algeria, Armenia, Morocco and Turkey (Bily, 1997).

Distribution in Turkey: It was cited from Turkey without precise locality by Richter (1949).

Material studied: The authors have no representative specimens from Turkey.

Biological note: Host plants of this species are *Acer campestre*, *Castanea sativa*, *Populus alba*, *P. nigra*, *P. tremula*, *Prunus mahaleb*, *P. spinosa*, *Rhamnus alaternus*, *Robinia pseudoacacia*, *Tilia cordata*, *Ulmus laevis* and *U. minor* (Thery, 1942; Schaefer, 1949; Cobos, 1986; Curletti, 1994).

Anthaxia marmottani Bristout, 1883

General distribution: Algeria and Morocco (Bily, 1997).

Distribution in Turkey: It was listed from Turkey without precise locality by Obenberger (1930). It is a West Mediterranean species. Probably its determination is not correct and misinterpreted with *A. irregularis* Abeille.

Anthaxia muliebris Obenberger, 1918

General distribution: Armenia, Azerbaidzhan, Iran, Israel, Syria and Turkey (Bily, 1997).

Distribution in Turkey: It was reported from Antalya, Izmir (Balçova-Agagemnon), Nevşehir (Avanos), Konya (Sultan Mountain) and Muğla (Marmaris-Cetibeli, Gökova) by Bily (1984). Recently Tozlu (1997) cited it from Artvin (Central province, Yusufeli), Erzincan (Üzümlü) and Erzurum (Oltu, Şenkaya, Tortum, Uzundere).

Material studied: Antalya (Kaş), Bilecik (Central province), Izmir (Bornova, Güzelbahçe, Kemalpaşa), Kahramanmaraş (Andırın), Karaman (Ermenek), Kayseri (Pınarbaşı), Kütahya (Domaniç) and Niğde (Ulukışla). 15 specimens.

Biological note: Adults were collected from the end of April up to the middle of June on *Pyrus elaeagnifolia* and mostly on weeds.

Anthaxia myrmidon Abeille, 1891

General distribution: Israel, Lebanon, Syria and Turkey (Bily, 1997).

Distribution in Turkey: It was reported from Izmir (Yamanlar, Gediz River) by Sahlberg (1912-1913) and cited from Turkey without precise locality by Richter (1949).

Material studied: Adana (Central province, Karaisalı), Antalya (Central province), Hatay (Hassa-Akbez, Kırıkhan), Izmir (Bornova-Pınarbaşı, Ödemiş), Muğla (Marmaris). 9 specimens.

Biological note: Adults were collected from the end of April up to the first week of June on *Pinus* sp., *Paliurus* sp., *Prunus domestica* and mostly on weeds. No valide information on its host plants has been found.

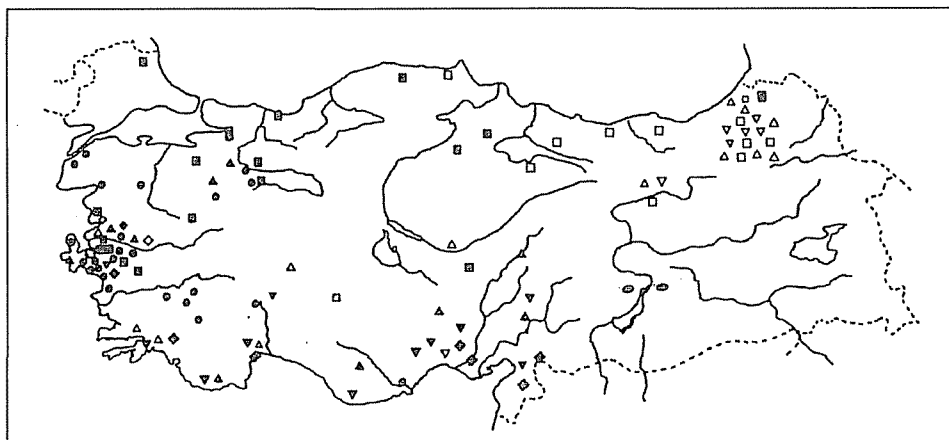


Figure 3. Distribution of *Anthaxia kervillei* □ / ◻ ; *A. lucens lucens* ○ / ⊙ ; *A. lucens phoenica* ○ / ⊙ ; *A. muliebris* △ / ▲ ; *A. myrmidon* ◇ / ◆ ; *A. nigricollis* ▽ / ▿ and *A. nitidula signaticollis* □ / ◻ .

***Anthaxia nigricollis* Abeille, 1904**

General distribution: Turkey (Bily, 1997). Endemic.

Distribution in Turkey: It was reported from southern parts of Turkey (Cilic. Taurus) by Bily (1984) and cited from Artvin (Yusufeli), Erzincan (Üzümlü), Erzurum (Ispir, Oltu, Tortum, Uzundere) by Tozlu (1997).

Material studied: Adana (Pozantı), Antalya (Central province-Sinan, Kaş), Hatay (Hassa-Akbez), Isparta (Eğirdir), İçel (Anamur, Çamlıyayla-Cehennemdere, Gözne), Izmir (Bornova-Pınarbaşı), Kahramanmaraş (Göksun) and Muğla (Marmaris). 16 specimens.

Biological note: Adults were collected from the end of April up to the second week of July on *Malus sylvestris mitis*, *Crataegus* sp., *Cistus* sp., *Quercus* sp. and mostly on weeds. Its host plants are not known.

***Anthaxia nitidula signaticollis* Krynicki, 1832**

General distribution: The Balcans, Hungary, Slovakia, Syria, Turkey and Ukraine (Bily, 1997).

Distribution in Turkey: Bodemeyer (1900) recorded it from Konya, Sahlberg (1912-1913) reported from Izmir and Schimitschek (1953) cited it from Sinop (Ayancık) and recently listed from Giresun (Dereli), Trabzon (Maçka) by Yüksel (1996), from Tokat (Central province, Niksar) by Ak (1997) and from Artvin (Central province, Yusufeli), Erzincan (Central province), Erzurum (Oltu, Tortum, Uzundere) by Tozlu (1997).

Material studied: Amasya (Merzifon), Artvin (Central province), Bilecik (Central province, Söğüt), Bursa (Uludağ), Çorum (Central province), Izmir (Bergama-Kozak, Bornova-Pınarbaşı, Kemalpaşa, Ödemiş), Kastamonu (Küre), Kayseri (Incesu), Kırklareli (Central province), Kocaeli (Karamürsel), Kütahya (Simav), Sakarya (Karasu). 86 specimens.

Biological note: Adults were collected from the third week of April up to the mid of July on *Cerasus avium*, *Prunus domestica*, *Crataegus orientalis*, *Rubus* sp., *Malus sylvestris mitis*, *Corylus avellana* and weeds. Tezcan (1995) reported it as a pest on cherry trees in Izmir (Kemalpaşa) district of Turkey. Curletti (1994) cited *Crataegus* sp., *Prunus avium*, *P. domestica*, *P. dulcis*, *P. mahaleb*, *P. vulgaris* and *P. spinosa* as host plants of *Anthaxia nitidula*.

***Anthaxia novickii* Obenberger, 1938**

General distribution: Syria and Turkey (Bily, 1997).

Distribution in Turkey: It was reported from Antalya (Serik-Belek, Kurşunlu) by Tosun (1976).

Material studied: Authors have no representatives of this species.

Biological note: Tosun (1976) reared it from the branches of *Pinus brutia* and *P. pinea*.

Anthaxia olivieri Gory et Laporte, 1839

General distribution: Rhodós and Turkey (Oberberger, 1930; Bily, 1997).

Distribution in Turkey: Reported from the southern and eastern parts of Turkey by Bily (1977).

Material studied: Antalya (Alanya, Elmalı), İçel (Gülнар). 4 specimens.

Biological note: Adults were collected at the second half of May on *Styrax* sp., *Centaurea* sp. and weeds. No valide information on its host plants has been found.

Anthaxia passerini (Pecchioli, 1837)

General distribution: Armenia, Azerbaidzhan, the Balcans, Turkey and Turkmenistan (Bily, 1997).

Distribution in Turkey: Reported from Adana (Bulgar Mountain) and Istanbul (Karaköy) by Bodemeyer (1900).

Material studied: Antalya (Central province, Saklıkent), Izmir (Bornova). 2 specimens.

Biological note: Adults were collected in the first half of May on *Malus sylvestris mitis* and weeds. Bily (1982 b), Gobbi (1986) and Curletti (1994) gave *Cupressus sempervirens*, *Juniperus* sp. and *Pinus pinea* as host plants of this species.

Anthaxia perrini Obenberger, 1918

General distribution: Cyprus (Bily, 1997).

Distribution in Turkey: Its occurrence in Turkey was cited without exact locality by Obenberger (1930) and Richter (1949). Its distribution in Turkey needs to be clarify.

Anthaxia platysoma Abeille, 1891

General distribution: Turkey (Bily, 1997). Endemic.

Distribution in Turkey: It was listed from İçel (Alihoca, Bulgar Mountain) by Bodemeyer (1900) and cited under the name of *A. illustris* from İçel (Bulgar Mountain, Turunçlu) by Sahlberg (1912-1913) and later on reported from Antalya by Bily (1977). Richter (1949) recorded it from Turkey without exact locality.

Material studied: İçel (Anamur, Mut, Silifke), Muğla (Dalaman). 11 specimens.

Biological note: Adults were collected in May on *Paliurus* sp., *Quercus* sp. and *Pinus* sp. . Bily (1977) collected the adults on the flowers of *Paliurus* sp. Host plant of this species is *Rhus* spp. (Bily, in Litt.).

Anthaxia plicata plicata Kiesenwetter, 1859

General distribution: The Balcans, Slovakia, Turkey and Ukraine (Bily, 1997).

Distribution in Turkey: Heyden et al. (1906) and Richter (1949) listed it from Turkey without exact locality.

Material studied: Afyon (Sultandağ), Antalya (Akseki), Bursa (Mudanya), Çanakkale (Ayvacık), Denizli (Acıpayam), Içel (Gülnar), Izmir (Central province, Bergama-Kozak, Bornova, Dikili, Kemalpaşa, Menderes, Ödemiş, Torbalı, Urla), Kahramanmaraş (Göksun), Kütahya (Central province), Muğla (Ula), Uşak (Çakközler). 99 specimens.

Biological note: Adults were collected from the beginning of April up to the end of May on *Pyrus elaeagnifolia*, *P. communis*, *Amygdalus communis*, *Rosa* sp., *Quercus* sp. According to Bily (1977), the host plant is *Paliurus spinachristi*.

Anthaxia podolica podolica Mannerheim, 1837

General distribution: Austria, the Balcans, Czech Republic, France, Germany, Hungary, Italy, Slovakia, Turkey and Ukraine (Bily, 1997).

Distribution in Turkey: Its exact locality is not known.

Material studied: Izmir (Bornova), Içel (Çamlıyayla), Karaman (Central province-Bucakkışla). 4 specimens.

Biological note: Adults were collected from the third week of April up to the mid of July on weeds. Curletti (1994) gave *Cornus mas*, *Fraxinus excelsior* and *R. ornus* as host plants of this species.

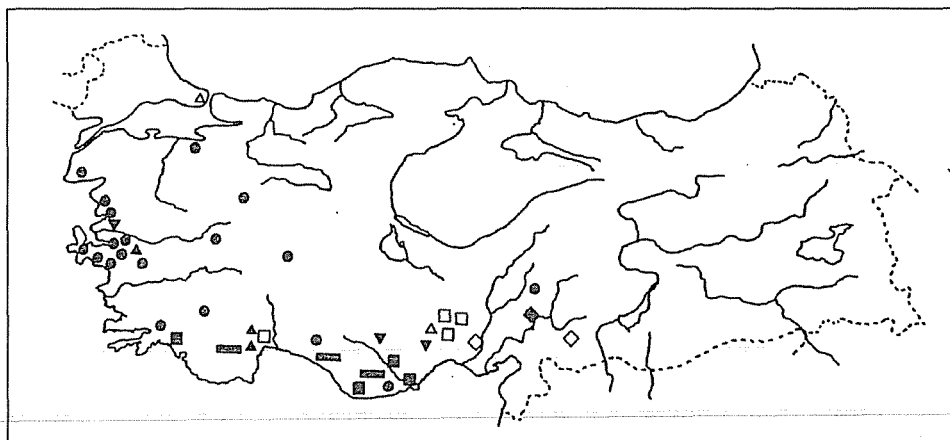


Figure 4. Distribution of *Anthaxia olivieri* □ /■; *A. passerini* Δ/▲; *A. platysoma* □ /■; *A. plicata plicata* ○ /◎; *A. podolica podolica* ▽ /▼ and *A. rutilipennis* ◇/◆.

***Anthaxia rutilipennis* Abeille, 1891**

General distribution: Turkey (Bily, 1997). Endemic.

Distribution in Turkey: Recorded under the name of *A. fleischeri* from Gaziantep as Ain-Tab by Obenberger (1930) and cited from Turkey without precise locality by Richter (1949) and later on reported from Adana (Bürücek) by Bily (1984).

Material studied: Kahramanmaraş (Andırın). 5 specimens.

Biological note: Its host plant is *Abies cilicica* (Bily, 1984). Adults were collected at the first half of June on weeds.

***Anthaxia salicis* (Fabricius, 1776)**

General distribution: Algeria, Austria, the Balcans, Czech Republic, France, Germany, Hungary, Italy, Morocco, Portugal, Slovakia, Spain, Switzerland, Tunisia, Turkey and Ukraine. USA:intr. (Bily, 1997).

Distribution in Turkey: Bodemeyer (1900) reported it from Afyon (Sultandağı) and Konya (Akşehir).

Material studied: Karabük (Eflani), Zonguldak (Ereğli). 2 specimens.

Biological note: Adults were collected in May on *Rubus* sp. They (1942), Schaefer (1949), Cobos (1986), Gobbi (1986) and Curletti (1994) gave *Acer obtusatum*, *Castanea sativa*, *Quercus alpestris*, *Q. ilex*, *Q. mirbecki*, *Q. pubescens* and *Salix caprea* as host plants of this species.

***Anthaxia semicuprea semicuprea* Küster, 1851**

General distribution: Austria, the Balcans, Czech Republic, France, Germany, Hungary, Italy, eastern parts of Russia, Slovakia, Spain, Switzerland and Ukraine (Bily, 1997).

Distribution in Turkey: Cobos (1986) reported it from Konya (Beyşehir-Acı Akif).

Material studied: Izmir (Bornova-Pınarbaşı). 1 specimen.

Biological note: Adult was collected in the middle of June on *Prunus domestica*. Curletti (1994) gave *Abies alba*, *Acer pseudoplatanus*, *Crataegus* sp., *Cydonia oblonga*, *Malus sylvestris mitis*, *Pyrus communis*, *Quercus cerris* and *Sorbus domestica* as host plants of this species.

***Anthaxia shirasensis* Obenberger, 1940**

General distribution: Iran and Turkey (Bily, 1977, 1997).

Distribution in Turkey: Bily (1977) reported it from Bingöl, but not cited in his last study (Bily, 1997).

Material studied: Authors have no representatives of this species.

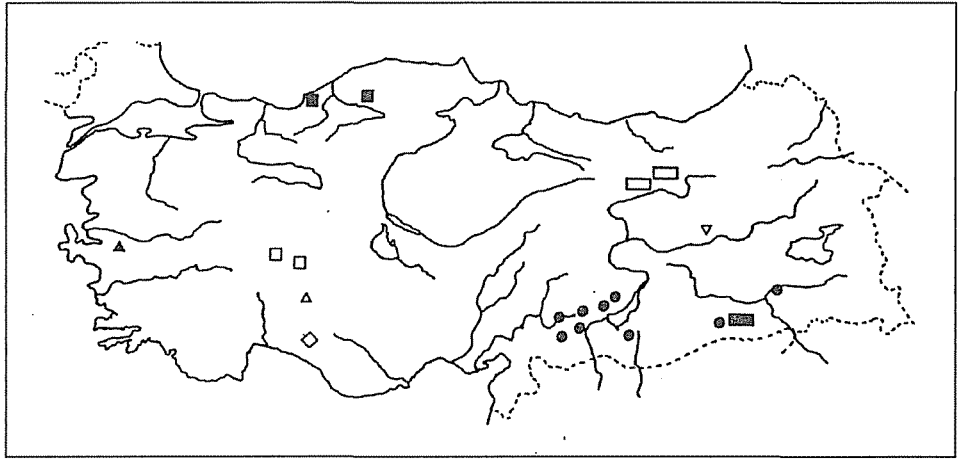


Figure 5. Distribution of *Anthaxia salicis* □ / ■ ; *A. semicuprea semicuprea* Δ/Δ; *A. shirasensis* ▽/▽ ; *A. turcica* ◇/◇; *A. turcomanica* □/■ and *A. winkleri* ○/●.

Anthaxia togata Abeille, 1882

General distribution: Israel, Lebanon, Syria and Turkey (Bily, 1997).

Material studied: Authors have no representatives of this species.

Anthaxia turcica Svoboda, 1994

General distribution: Turkey (Svoboda, 1994). Endemic.

Distribution in Turkey: Svoboda (1994) described this species from Antalya (Akseki).

Material studied: Authors have no representatives of this species.

Biological note: Svoboda (1994) collected the adults on *Juniperus* sp. and *Pyrus* sp.

Anthaxia turcomanica Obenberger, 1937

General distribution: Turkey (Bily, 1997). Endemic.

Distribution in Turkey: Bily (1977) reported it from the southeastern parts of Turkey and Tozlu (1997) cited it from Erzincan (Central province, Üzümlü).

Material studied: Mardin. 1 specimen.

Biological note: It was collected on the weeds in the mid of June. Its host plants are *Eryngium* spp.

***Anthaxia winkleri* Obenberger, 1914**

General distribution: Syria and Turkey (Bily, 1997).

Material studied: Adıyaman (Central province*, Besni*, Kuyucak), Gaziantep (Central province*, Araban), Kahramanmaraş (Pazarcık*), Mardin (Central province*), Şanlıurfa (Central province), Siirt (Central province*). 15 specimens.

Biological note: Adults were collected from the end of June up to the mid of July on *Amygdalus communis*.

Discussion

In consequence of this study, totally 39 species belonging to the *Anthaxia* (subgenus *Anthaxia*) have been discussed in Turkey. Amongst those *A. nitidula signaticollis*, *A. anatolica* and *A. lucens* have been found most abundantly. Studies have indicated that four of the species namely *A. ghazi*, *A. turcomanica*, *A. salicis* and *A. semicuprea* have been the most rare species in the Turkish fauna. Although it was cited from Turkey in relevant literature, the occurrence of *A. perrini* needs to be clarify. *A. marmottani* probably misinterpreted with *A. irregularis* and it should be excluded from Turkish fauna.

Acknowledgements

The authors are grateful to Dr.S.Bily (National Museum, Praha, Czech Republic) for identifications/confirmations of the material and reviewing an earlier draft of this manuscript. Sincere thanks to the Late Prof. Dr. N. Lodos, Prof. Dr. F. Önder, Prof. Dr. E. Pehlivan, the Late Assoc. Prof. Dr. R. Atalay, Assoc. Prof. Dr. Y. Karsavuran and Assoc. Prof. Dr. E. Erkin for collection of the material.

Özet

Türkiye *Anthaxia* (*Anthaxia*) Eschscholtz (Coleoptera, Buprestidae) türleri üzerinde faunistik notlar

Bu çalışmada, Türkiye faunasında yer alan *Anthaxia* (*Anthaxia*) cinsine bağlı 39 tür ele alınmıştır. Her türün yayılışı, toplandığı yöre ve üzerinden toplandığı bitkiler belirtilerek, konuyla ilgili önceki literatürün ışığı altında Türkiye'deki yayılışları haritalarla gösterilmiş, ayrıca koleksiyonda materyali bulunmayan türlerle ilgili bilgilere de yer verilmiştir.

Literature

- Ak, K., 1997. Tokat ilinde bulunan Buprestidae (Coleoptera) familyası türleri üzerinde faunistik çalışmalar. M. Sc. Thesis. Tokat. 94 pp.
- Bily, S., 1973. *Anthaxia* (s.str.) *hozaki* sp.n. (Coleoptera, Buprestidae) from Cyprus. *Acta ent. bohemoslov.*, **70**: 427-429.

- Bily, S., 1977. Taxonomic notes on *Anthaxia* (Coleoptera, Buprestidae) from South-western Asia, with descriptions of two new species. **Acta ent. bohemoslov.**, **74**: 275-282.
- Bily, S., 1979. New records and rare species of Buprestids from Bulgaria (Coleoptera, Buprestidae). **Acta Zoologica Bulgarica**, **13**: 47-52.
- Bily, S., 1980. Taxonomical notes on *Anthaxia* from the Palearctic and Oriental regions, with descriptions of new taxa (Coleoptera: Buprestidae). **Acta ent. bohemoslov.**, **77**: 400-407.
- Bily, S., 1982a. Two new species of *Anthaxia* from Crete (Coleoptera: Buprestidae). **Acta ent. bohemoslov.**, **79**: 56-60.
- Bily, S., 1982b. A revision of the *Anthaxia passerini* Pecchioli species-group (Coleoptera: Buprestidae). **Acta ent. bohemoslov.**, **79**: 221-225.
- Bily, S., 1984. Taxonomical and biological notes on Buprestidae from Turkey (Coleoptera). **Türk. Bit. Kor. Derg.**, **8**: 143-149.
- Bily, S., 1997. World Catalogue of the genus *Anthaxia* Eschscholtz, 1829 (Coleoptera, Buprestidae). **Folia Heyrovskyana**, Suppl. 2: 190 pp.
- Bodemeyer, H.E., 1900. Quer durch Klein-Asien den Bulghar Dag. Die Druck und Verlags-Aktien Gesellschaft Vormals Dölter, Emmendingen, 169 pp.
- Cobos, A., 1986. Fauna Iberica de Coleopteros Buprestidae. Consejo superior de investigaciones científicas, Madrid, 364 pp.
- Curletti, G., 1994. I Buprestidi d'Italia. Catalogo, Tassonomico, Sinonimica, Biologico, Geonemico. **Monografie di "Natura Bresciana"** **19**: 318 pp.
- de Kerville, H.G., 1939. Récit sommaire du voyage et liste méthodique des invertébrés et des vertébrés récoltés en Asie-Mineure. Voyage Zoologique Henri Gadeau de Kerville en Asie-Mineure (Avril-Mai, 1912), Tome I. Paul Le Chevalier, Paris, 148 pp.
- Fairmaire, M.L., 1866. Notice sur les Coléoptères récoltés par M.J. Lédérer sur le Bosz-Dagh (Asie-Mineure). **Annl. Soc. ent. Fr.**, **35**: 249-280.
- Gobbi, G., 1986. Le piante ospiti dei Buprestidi Italiani. Primo quadro d'insieme (Coleoptera, Buprestidae). **Fragm. ent.**, **19** (1): 169-265.
- Gül-Zümreoğlu, S., 1972. Izmir Bölge Zirai Mücadele Araştırma Enstitüsü böcek ve genel zararlılar kataloğu, 1928-1969. İstiklal Matbaası, İzmir, 119 pp.
- Heyden, L.V., E. Reitter & J. Weise, 1906. Catalogus Coleopterorum Europae, Caucasi et Armeniae Rossicae. Paskau, 774 pp.
- Lodos, N. & S. Tezcan, 1992. Türkiye Buprestidae (Coleoptera) faunasının genel durumu ve zoocoğrafik yönden değerlendirilmesi. **E. Ü. Zir. Fak. Derg.**, **29** (1): 15-22.
- Novak, 1992. *Anthaxia* (s. str.) *herbestschmidti* sp.n. aus der Sudturkei (Coleoptera, Buprestidae). **Zeitschrift der Arbeitsgemeinschaft österreichischer Entomologen**, **44**: 26-28.
- Obenberger, J., 1930. Buprestidae II. Coleopterorum Catalogus (Eds. W.Junk and S. Schenkling), **12** (III): 213-568.

- Obenberger, J., 1953. Résultats de l'expédition scientifique zoologique du Museum National de Praha en Turquie. 423. Coleoptera IV. Buprestidae. **Acta ent. Mus. natn. Pragae**, **29**: 5-23.
- Richter, A.A., 1949. Fauna SSSR, 13, 4 Zlatki (Buprestidae) II. Izd. AN SSSR, Moskva, Leningrad, 233 pp.
- Sahlberg, J., 1912-1913. Coleoptera Mediterranen Orientalia. **Öfersigt of Finska Vetenskaps-Socientetens Förhandlingar**, **55** (19): 272.
- Schaefer, L., 1949. Les Buprestides de France. Editions Scientifiques du cabinet entomologique. E. le Mout 4, Rue Dumeni, Paris, 509 pp.
- Schimitschek, E., 1953. Türkiye orman böcekleri ve muhiti (Çev: A. Acatay). İstanbul Üniversitesi Yayın. No: 556, Orman Fakültesi Yayın, No: 24, Hüsnütabiat Matbaası, İstanbul, 471 pp.
- Svoboda, P., 1994. Two new species of **Anthaxia** from Turkey (Coleoptera, Buprestidae). **Folia Heyrovskyana**, **2** (5): 63-67.
- Tezcan, S., 1995. Kemalpaşa (İzmir) yöresi kiraz ağaçlarında zararlı Buprestidae (Coleoptera) familyası türleri üzerinde araştırmalar. **Türk. entomol. derg.**, **19** (3): 221-230.
- Thery, A., 1942. Faune de France. Coléoptères Buprestides, 41. Librairie de la Faculté des Sciences, Paris, 169, 223 pp.
- Tosun, I., 1976. Akdeniz Bölgesi iğne yapraklı ormanlarında zarar yapan böcekler ve önemli türlerin parazit ve yırtıcıları üzerinde araştırmalar. **I.Ü. Orm. Fak. Derg.**, **26** (2): 218-254.
- Tozlu, G., 1997. Erzurum, Erzincan, Artvin ve Kars İlleri Buprestidae (Coleoptera) türleri üzerinde faunistik ve sistematik çalışmalar. Ph. D. Thesis. Erzurum. 289 pp.
- Winkler, A., 1924-1932. Catalogus Coleopterorum Regionis Palearcticae XVIII. Dittesgasse II, Wien, 620-623.
- Yüksel, B., 1996. Türkiye'de Doğu ladini (**Picea orientalis** (L.) Link.)'nde zarar yapan böcekler ve bazı türlerin yırtıcı ve parazitleri üzerinde araştırmalar. Ph. D. Thesis. Trabzon. 224 pp.