

Contribution to the study of the genus ***Anthaxia***
Eschscholtz, 1829 (subgenera ***Cratomerus***
Solier, 1833 and ***Melanthaxia*** Richter, 1944)
(Coleoptera: Buprestidae) of Turkey

Serdar TEZCAN*

Svatopluk BILY**

Summary

This paper provides faunistic information about 25 species/subspecies of ***Anthaxia*** Eschscholtz, 1829 (subgenera ***Cratomerus*** Solier, 1833 and ***Melanthaxia*** Richter, 1944) cited from Turkey. Amongst those ***Anthaxia rugicollis tassi*** Herman, 1966 is the new record for Turkish fauna. ***A. bilyi*** Curletti, 1984, ***A. meregallii*** Curletti & Magnani, 1985, ***A. scurra*** Bily, 1982, ***A. sternalis*** Abeille, 1895 and ***A. tenella virgo*** Bily, 1980 are endemic species. Material collected from the different parts of Turkey are given with attached maps.

Key words: ***Anthaxia***, ***Cratomerus***, ***Melanthaxia***, Buprestidae, Turkey, fauna

Anahtar sözcükler: ***Anthaxia***, ***Cratomerus***, ***Melanthaxia***, Buprestidae, Türkiye, fauna

Introduction

Fauna of the genus ***Anthaxia*** Eschscholtz, 1829 of Turkey is quite rich. In the study of Karaman and Tezcan (1998) 39 species of ***Anthaxia*** (subgenus ***Anthaxia***) and in the study of Ulay and Tezcan (1998) 22 species of ***Anthaxia***

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

** National Museum, Entomology Department, Praha, Czech Republic

Alınış (Received): 04.08.1997

(subgenus **Haplanthaxia**) Reitter, 1911 have been evaluated. The species of the subgenera **Cratomerus** Solier, 1833 and **Melanthaxia** Richter, 1944 are very rich. The studies of Bily (1980 a, 1980 b, 1984 a, 1984 b, 1984 c) Bily & Brodsky (1982), Curletti (1984), Curletti & Magnani (1985), Novak (1985) have made great contribution to the richness of Turkish fauna.

With this study, to make contribution to some faunistical records of **Anthaxia** (subgenera **Cratomerus** and **Melanthaxia**) fauna of Turkey and to present the current situation to the specialists aimed at.

In this study, information about general 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 labels. The name of the plant on 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** (subgenera **Cratomerus** and **Melanthaxia**), previous faunistic records and the localities of material studied in this study 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 preserved in the collections of "Prof. Dr. Niyazi Lodos Museum" of the same department. Material preserved in the collection of National Museum, Praha, Czech Republic are shown with asterisk.

Results

As a result of this study totally 25 species/subspecies belonging to **Anthaxia** (subgenera **Cratomerus** and **Melanthaxia**) are evaluated. Amongst them 8 species belong the subgenus **Cratomerus** and 17 to the subgenus **Melanthaxia**. Data about them are given as follows.

Subgenus: **Cratomerus** Solier, 1833

Anthaxia diadema diadema Fischer, 1824

General distribution: Bulgaria, Cyprus, Greece, Israel, Lebanon, Syria, Turkey and Ukraine (Bily, 1997).

Distribution in Turkey: Described from the material collected from Konya (Akşehir) and reported from Turkey without precise locality by Fairmaire (1884), Obenberger (1930), Richter (1949) and Bily (1980 b).

Material studied: Adana (Gavur Mountain), Ankara (Beynam, Çubuk, Kızılcahamam), Aydın (Samsun Mountain), Antalya (Central province), Çorum (Iskilip), Hakkari (Central province, Çukurca), Isparta (Eğirdir-Kovada), İçel (Cehennemdere, Silifke), İzmir (Bayındır, Bornova, Menemen, Ödemiş), Konya (Doğanhisar-Deştiğin), Manisa (Gördes), Osmaniye (Zorkun) and Uşak (Central province). 28 specimens.

Biological note: Adults were collected on *Paliurus* spp., *Prunus domestica*, *Pyrus malus*, *Quercus* spp. and weeds from the end of April up to the middle of August mostly in June. Bily (1980 b) reported *Salix* sp. and *Populus* sp. as host plants of this subspecies.

***Anthaxia eugeniae eugeniae* Ganglbauer, 1885**

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

Distribution in Turkey: Described from the material collected from Amasya and İçel (Güleğ) and reported from İzmir (Yamanlar Mountain) by Sahlberg (1912-1913).

Material studied: Antalya (Aksu), Balıkesir (Havran), İçel (Gülner), İzmir (Bornova, Gazimir, Menemen, Narlıdere) Kayseri (Central province), Mardin (Mazıdağ) and Sivas (Koyulhisar) . 12 specimens.

Biological note: Adults were collected on *Armeniaca vulgaris*, *Cupressus* spp., *Genista* spp., *Quercus* spp. and on weeds from the third week of April up to the middle of July mostly in May. Its host plants are *Quercus* spp.

***Anthaxia hungarica hungarica* (Scopoli, 1772)**

General distribution: Algeria, Austria, the Balcans, Crete, Czech Republic, France, Germany, Hungary, Italy, Morocco, Portugal, southern parts of Russia, Slovakia, Spain, Turkey and Ukraine (Bily, 1997).

Distribution in Turkey: It was cited from Turkey without precise locality by Fairmaire (1884), Obenberger (1930) and Richter (1949). Tuatay et al. (1972) listed it from Konya (Akşehir).

Material studied: Kırklareli (İğneada), Kastamonu (Devrekani). 2 specimens.

Biological note: Adults were collected in June on weeds under oak trees. *Quercus* spp. are host plants of this species (Gobbi, 1986; Curletti, 1994).

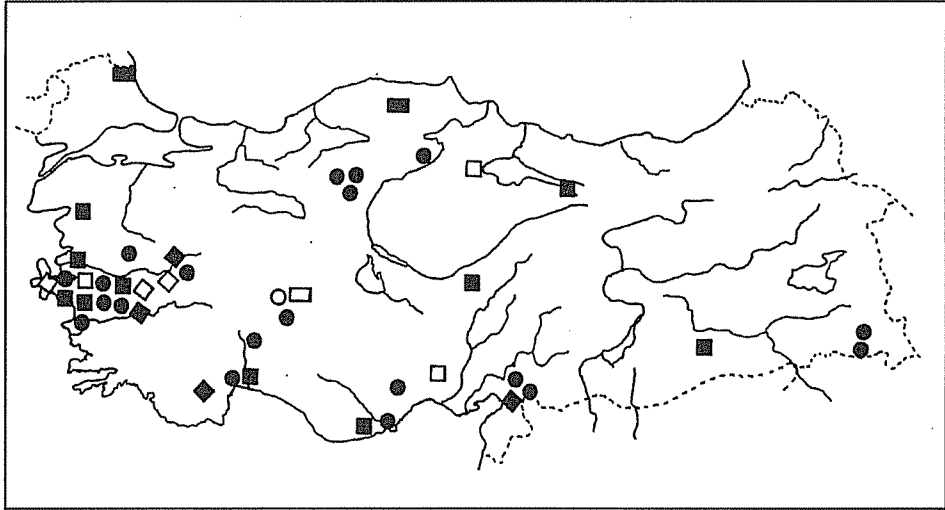


Figure 1. Distribution of *Anthaxia diadema diadema* ○/●; *A. eugeniae eugeniae* □/■; *A. hungarica hungarica* □/■ and *A. krueperi* ◇/◆.

Anthaxia krueperi Ganglbauer, 1885

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

Distribution in Turkey: Described from the material collected from Izmir and reported from Izmir (Ödemiş) and Uşak (Bily, 1980 b). Richter (1949) cited from Turkey without precise locality.

Material studied: Antalya (Elmalı*), Hatay (Hassa-Akbez*), Izmir (Ödemiş), Uşak (Central province*). 12 specimens.

Biological note: Adults were collected on *Ulmus* sp. in the middle of May. Its host plants are not known.

Anthaxia mirabilis Zicharev, 1918

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

Distribution in Turkey: Reported from Muş and Hakkari by Novak (1985).

Material studied: Malatya (Central province*). 1 specimen.

Anthaxia nupta nupta Kiesenwetter, 1857

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

Distribution in Turkey: Described from the material collected from Izmir and cited from western parts of Turkey by Bily (1980 b). Reported from Turkey without precise locality by Heyden et al. (1906) and Richter (1949). Novak (1985) reported it from Antalya (Alanya).

Material studied: Antalya (Alanya*), Aydın (Central province*), Izmir (Bornova, Central province* Karaburun-Mordoğan). 12 specimens.

Biological note: Adults were collected on weeds in May and in June. Its host plants are not known.

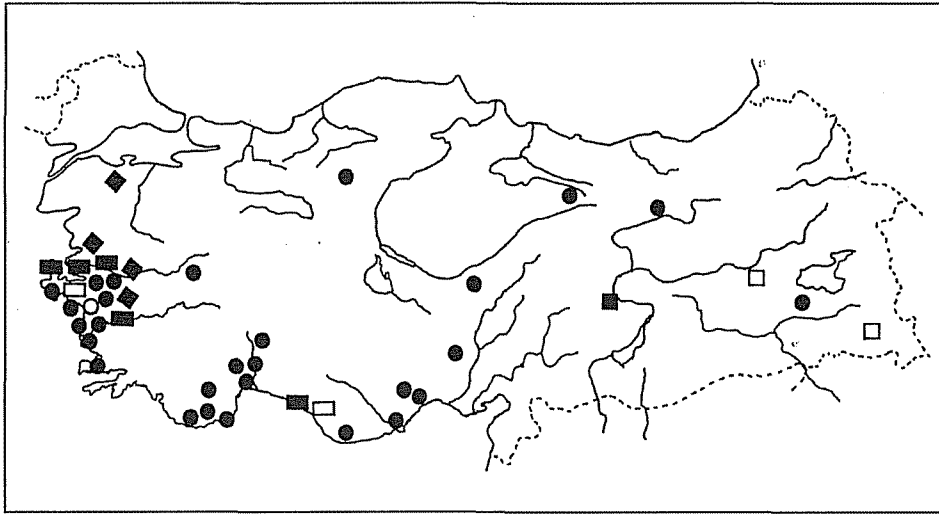


Figure 2. Distribution of *Anthaxia sponsa* ○/●; *A. mirabilis* □/■; *A. nupta nupta* □/■ and *A. scorzonerae* ◇/◆.

Anthaxia scorzonerae (Fivaldszki, 1838)

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

Distribution in Turkey: Reported from Turkey without precise locality by Obenberger (1930), Richter (1949) and Bily (1980 b).

Material studied: Balıkesir (Gönen), Izmir (Kemalpaşa, Menemen, Ödemiş*). 10 specimens.

Biological note: Adults were collected on *Vicia* spp. and weeds at the beginning of May and in June. Its host plants are not known.

***Anthaxia sponsa* Kiesenwetter, 1857**

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

Distribution in Turkey: Reported from Izmir (Selçuk-Efes) by Sahlberg (1912-1913) and cited from Turkey without precise locality by Obenberger (1930), Richter (1949) and Bily (1980 b).

Material studied: Adana (Pozanti), Ankara (Kızılcahamam), Antalya (Central province-Sinan, Güllük Mountain, Elmalı, Kaş-Kale, Kumluca), Aydın (Kuşadası, Samsun Mountain), Bitlis (Hizan), Erzincan (Central province), İçel (Anamur, Cehennemdere, Güzeloluk, Silifke), Isparta (Eğirdir-Kovada Lake), Izmir (Bayındır, Bornova, Gümüşsu, Kemalpaşa, Seferihisar-Teos, Selçuk-Pamucak), Kayseri (Central province), Muğla (Bodrum), Sivas (Koyulhisar) and Uşak (Central province). 55 specimens.

Biological note: Adults were collected from middle of April to the middle of July mostly in May and June on *Armeniaca vulgaris*, *Medicago sativa*, *Prunus* sp., *Malus sylvestris mitis*, *Quercus* sp., *Rhus* sp., *Verbascum* sp. and by aerial collector. Its host plants are *Prunus armeniaca*, *Malus sylvestris mitis* and *Quercus* spp. (Bily, 1980 b).

Subgenus: *Melanthaxia* Richter, 1944

***Anthaxia bilyi* Curletti, 1984**

General distribution: Turkey (Curletti, 1984; Bily, 1997). Endemic.

Distribution in Turkey: Described and reported from Kahramanmaraş (Göksun) by Curletti (1984) and Bily (1984 b).

Material studied: Antalya (Kaş*). 1 specimen.

Biological note: Probably *Pinus* spp. are the host plants of this species (Curletti, 1984; Bily, 1984 b).

***Anthaxia caucasica* Abeille, 1900**

General distribution: Armenia, Azerbaidzhan, Georgia and Turkey (Bily, 1997; Tezcan, 1997).

Distribution in Turkey: Bily (1984 b) reported it from the border of Armenia and Tezcan (1997) listed it from Turkey without precise locality.

Material studied: Erzurum (Oltu). 1 specimen.

Biological note: Adult was collected at the beginning of July. Its host plants are *Juniperus* spp. (Bily, 1984 b).

***Anthaxia corinthia* Reiche & Saulcy, 1856**

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

Distribution in Turkey: Reported from Antalya and Denizli (Tavas) by Acatay (1969) and cited from Turkey without precise locality by Richter (1949) and Bily & Brodsky (1982).

Material studied: Adana (Pozantı*-Bürücek*), Antalya (Central province), İçel (Çamlıyayla*), Izmir (Bornova, Buca, Menderes-Gümüldür*, Ödemiş-Bozdağ), Kahramanmaraş (Göksun) and Manisa (Salihli). 10 specimens.

Biological note: Adults were collected from the middle of April to the middle of June on *Castanea* sp., *Pinus* sp., *Quercus* sp. and on weeds. Its host plants are *Pinus brutia*, *P.halepensis*, *P.nigra* and *P.pinea* (Acatay, 1969; Bily & Brodsky, 1982).

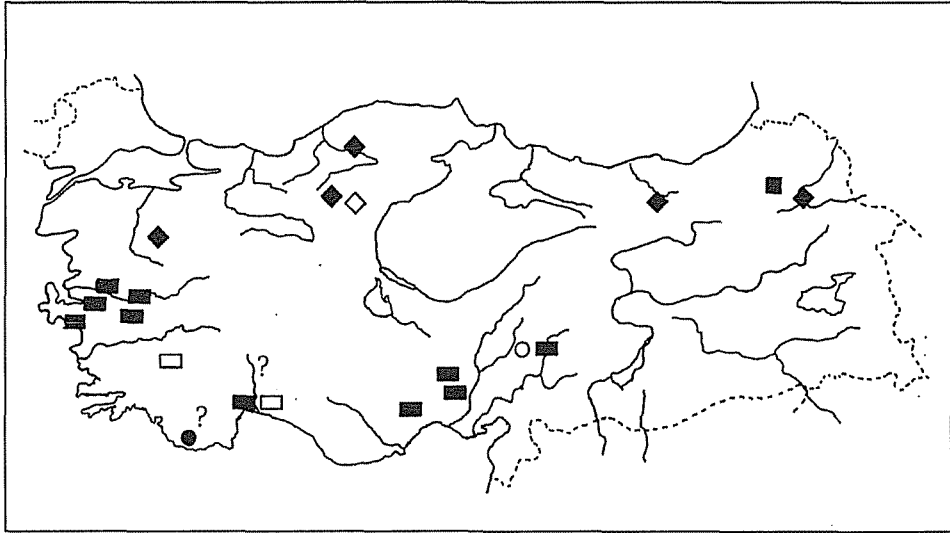


Figure 3. Distribution of *Anthaxia bilyi* ○/●; *A. caucasica* □/■; *A. corinthia* □/■; *A. godeti* ◇/◆ and *A. istriana* (?).

Anthaxia godeti Gory & Laporte, 1839

General distribution: Central Asia, Europe, Armenia, Azerbaidzhan, Georgia and Turkey (Bily, 1997).

Distribution in Turkey: Reported from Ankara (Beynam) by Obenberger (1953) under the name of *A. submontana* Obenberger and cited from Turkey without precise locality by Richter (1949).

Material studied: Ankara (Kızılcahamam), Balıkesir (Dursunbey), Gümüşhane (Central province), Karabük (Safranbolu), Kars (Sarıkamış*). 14 specimens.

Biological note: Adults were collected from the end of May to the middle of July on weeds. Host plants of this species are *Picea excelsa* and *Pinus* spp. (Gobbi, 1986).

Anthaxia istriana Rosenhauer, 1847

General distribution: Austria, the Balcans, France, Italy, Slovakia (Bily, 1997), Turkey (?) (Tosun, 1976).

Distribution in Turkey: Tosun (1976) reported it from Antalya (Elmalı-Avlanbeli) and Burdur (Bucak-Uğurlu Kızılgöl) but these data concern probably of *A. mysteriosa* Obenberger.

Anthaxia masculina Bily, 1984

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

Distribution in Turkey: Bily (1984 a) reported it from Ankara (Sincan), Antalya (Side), Çanakkale (Central province), İzmir (Gümlüdüz), Karaman (Sertavul Pass), Muğla (Central province) and Tokat (Turhal).

Material studied: Adana (Pozanti*, Fındıklı*), Antalya (Serik-Beşkonak*), İçel (Erdemli*, Silifke*), İzmir (Bergama), Karaman (Sertavul Pass*), Muğla (Central province*). 19 specimens.

Biological note: Bily (1984 a) cited *Pinus nigra* as host plant of this species.

***Anthaxia meregallii* Curletti & Magnani, 1985**

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

Distribution in Turkey: Described from the material collected from Kahramanmaraş (Göksun) (Curletti & Magnani, 1985).

Material studied: Adana (Pozantı*), Antalya (Akseki*, Yarpuz*), Bilecik (Central province*). 5 specimens.

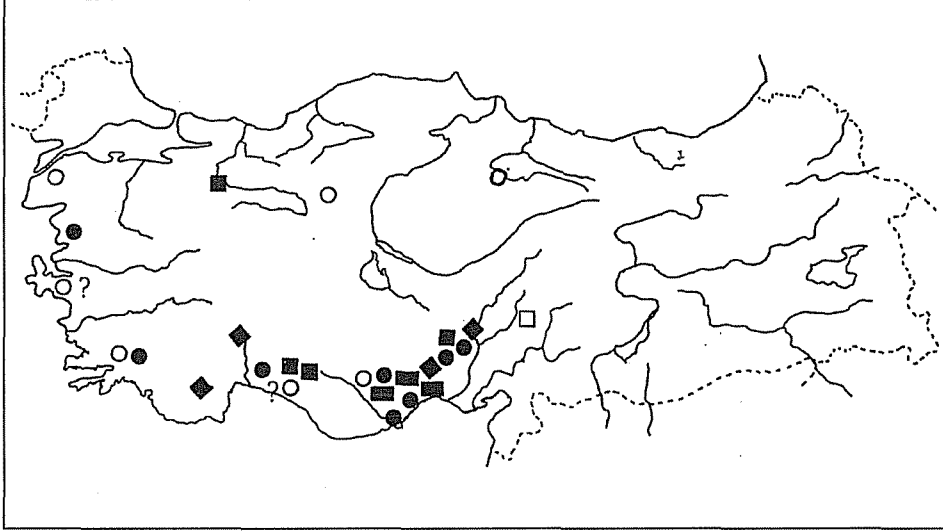


Figure 4. Distribution of *Anthaxia masculina* ○/●; *A. meregallii* □/■ ; *A. misteriosa* □/■; *A. negrei* ◇/◆ and *A. sepulchralis* (?).

***Anthaxia misteriosa* Obenberger, 1917**

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

Material studied: İçel (Mersin*, Çamlıyayla), Karaman (Sertavul Pass*). 5 specimens.

***Anthaxia negrei* Cobos, 1953**

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

Material studied: Adana (Pozantı*), Antalya (Elmalı*), İçel (Çamlıyayla*), Isparta (Davras Mountain*). 9 specimens.

***Anthaxia nigrojubata nigrojubata* Roubal, 1913**

General distribution: Armenia, Georgia and eastern parts of Turkey (Bily, 1997).

Distribution in Turkey: Distribution of this subspecies is not precisely known in Turkey. It is distributed probably at the east of Kızılırmak River in Turkey (Bily, 1974).

Material studied: Tokat (Almus) and Yozgat (Central province). 3 specimens.

Biological note: Adults were collected at the end of June on *Quercus* spp. Its host plants are *Abies nordmaniana*, *Juniperus* sp.(?), *Pinus halepensis pithyusa* and *P. halepensis eldarica* (Bily, 1974).

***Anthaxia nigrojubata incognita* Bily, 1974**

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

Distribution in Turkey: Recorded from Çankırı (Ilgaz Mountain) and distributed at the western parts of Turkey (Bily, 1974).

Material studied: Ankara (Kızılcahamam), Bolu (Abant Lake*), Burdur (Bucak), Çankırı (Ilgaz Mountain*) and Izmir (Selçuk). 7 specimens.

Biological note: Adults were collected in April and May on *Pinus* sp. and *Prunus domestica*. Its host plants are *Abies alba*, *A.cephalonica*, *Juniperus* sp., *Picea* sp. and *Pinus* sp. (Schaefer, 1949; Bily, 1974).

***Anthaxia obesa* Abeille, 1900**

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

Distribution in Turkey: Described from the material collected from Hatay (Akbes) and reported from Izmir (Yamanlar Mountain) by Sahlberg (1912-1913).

Material studied: Antalya (Akseki*, Güllük Mountain, Side*), İçel (Çamlıyayla, Mut), Izmir (Central province-Gümüldür*). 17 specimens.

Biological note: Adults were collected at the end of April on *Genista* sp. and at the end of July on *Amygdalus communis*. Its host plants are *Pinus brutia*, *P.halepensis*, *P.nigra* and *P.pinaster* (Bily, 1984 a).

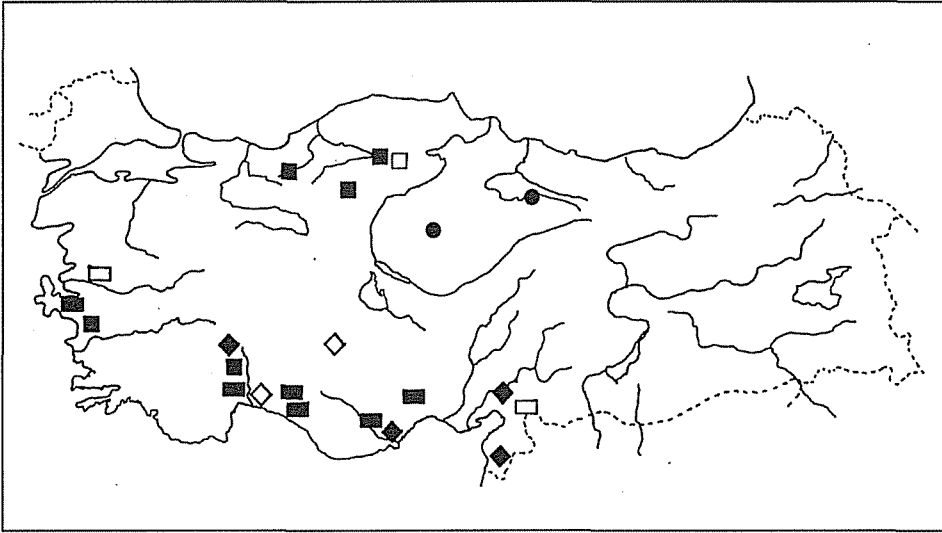


Figure 5. Distribution of *Anthaxia nigrojubata nigrojubata* O/●; *A. nigrojubata incognita* □/■; *A. obesa* □/▨ and *A. pinguis* ◇/◆.

Anthaxia pinguis Kiesenwetter, 1880

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

Distribution in Turkey: Reported from Konya by Bodemeyer (1900) and cited from Antalya under the name of *A. corynthia astarte* by Schimitschek (1953).

Material studied: Hatay (Yayladağ), İçel (Silifke), Isparta (Central province*) and Osmaniye (Zorkun). 4 specimens.

Biological note: Adults were collected at the end of April on *Daphne* sp. and at the beginning of June on *Cistus* sp. and *Euphorbia* sp.. *Pinus nigra* and other *Pinus* spp. are the host plants of this species (Schimitschek, 1953; Bily, 1984 a).

Anthaxia quadripunctata quadripunctata (Linnaeus, 1735)

General distribution: Europe, Armenia, Sibiria (Bily, 1997), Turkey (Bodemeyer, 1990; Çanakçıoğlu, 1983).

Distribution in Turkey: Reported from İçel (Zanapa) by Bodemeyer (1900) and from Bolu (Düzce) by Çanakçıoğlu (1983).

Material studied: Adana (Pozantı*). 2 specimens.

***Anthaxia rugicollis tassi* Herman, 1966**

General distribution: Greece (Bily, 1997).

Distribution in Turkey: This subspecies was described from Greece; new record for Turkey.

Material studied: Içel (Silifke*). 1 specimen.

***Anthaxia scurra* Bily, 1982**

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

Distribution in Turkey: Described from Hatay (Akbes, Hassa Beley) (Bily & Brodsky, 1982).

Material studied: Içel (Çamlıyayla*). 2 specimens.

***Anthaxia sepulchralis* (Fabricius, 1801)**

General distribution: Austria, France, Italy, Portugal, Spain (Bily, 1997), Turkey (?) (Sahlberg, 1912-1913; Tosun, 1976).

Distribution in Turkey: Sahlberg (1912-1913) reported from Izmir and Tosun (1976) listed it from Antalya (Serik-Belek, Kumköy). It is a west Mediterranean species. Probably its determination is not correct and confused with *A. corinthia*.

***Anthaxia sternalis* (Abeille, 1895)**

General distribution: Syria (Bily, 1997).

Distribution in Turkey: Reported from Akbes (Syria) by mistake by Richter (1949). Akbes is a village near Hassa (Hatay) in Turkey. It is not in Syria and *A. sternalis* needs to be include in to Turkish fauna.

Material studied: Authors have no representatives of this endemic species.

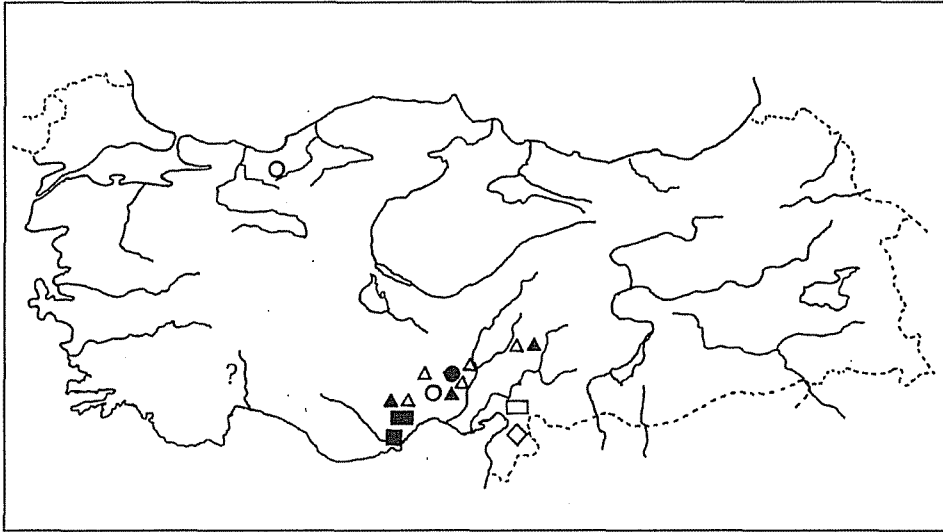


Figure 6. Distribution of *Anthaxia quadripunctata quadripunctata* ○/●; *A. rugicollis tassi* □/■; *A. scurra* □/■; *A. sternalis* ◇/◆; *A. tenella virgo* △/▲ and *A. sturanyi* (?).

Anthaxia sturanyi Obenberger, 1914

General distribution: Albania, Greece (Bily, 1997), Turkey (?) (Tosun, 1976).

Distribution in Turkey: Tosun (1976) reported it from Burdur (Bucak) forests. There is not another record from Turkey. Its distribution in Turkey needs to be clarified and the Tosun's record concerns most probably *A. negrei*.

Anthaxia tenella virgo Bily, 1980

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

Distribution in Turkey: This subspecies was described from Turkey. Reported from Adana (Bürücek, Pozantı, Fındıklı), İçel (Namrun), Kahramanmaraş (Göksun) by Bily (1980 a & 1984 c).

Material studied: Adana (Pozantı*), İçel (Çamlıyayla), Kahramanmaraş (Göksun*). 8 specimens.

Biological note: *Abies cilicica* is the host plant of this species (Bily, 1984 c).

Discussion

As a consequence of this study, a total of 25 species/subspecies which were cited up to now from Turkey and belonging to the *Anthaxia* (subgenera *Cratomerus* and *Melanthaxia*) have been evaluated. Amongst those 8 species belong to the subgenus *Cratomerus* and 17 species/subspecies belong to the subgenus *Melanthaxia*. In addition, *A. istriana*, *A. sepulchralis* and *A. sturanyi* are still doubtful for Turkish fauna. While *A. diadema diadema* and *A. sponsa* have been found most abundantly.

The number of species belonging to the *Anthaxia* fauna of Turkey and reported in the studies of Bodemeyer (1900), Heyden et al. (1906), Sahlberg (1912-1913), Winkler (1924-1932), Obenberger (1930) and de Kerville (1939) were given as 10; 6; 30; 12; 42;6 respectively. Lodos & Tezcan (1992) cited 69 species of which 10 are endemic. Recently, a total of 78 species were reported from Turkey by Bily (1997). In the study of Karaman & Tezcan (1998) 39 species of *Anthaxia* (subgenus *Anthaxia*) have been evaluated and in the study of Ulay & Tezcan (1998) 22 species of *Anthaxia* (subgenus *Haplanthaxia*) have also been evaluated.

At the end of this study, the number of species belong to *Anthaxia* fauna of Turkey have rised up to 86 of which 16 species are endemic.

It is expected that the number of *Anthaxia* species will rise over 100 species in Turkey in the near future. It is possible to find more than 10 species most of them recorded from adjacent countries when detailed surveys will be carried out in Turkey.

These results show that *Anthaxia* fauna of Turkey is quite rich and the richness of known species will be rised with more detailed studies.

Özet

Türkiye *Anthaxia* Eschscholtz 1829 (altcins *Cratomerus* Solier, 1833 ve *Melanthaxia* Richter, 1944) (Coleoptera: Buprestidae) türleri üzerinde faunistik notlar

Bu çalışmada Türkiye'nin değişik yerlerinden kaydedilen 25 *Anthaxia* türü ele alınmıştır. Her türün yayılışı, toplandığı yöre ve üzerinden toplandığı bitkiler belirtilerek, konuyla ilgili önceki literatürün ışığı altında Türkiye'deki yayılışları haritalarla gösterilmiştir. Bunlardan *A. rugicollis tassi* Herman, 1966 Türkiye faunası için ilk kayıttır. *A. bilyi*, *A. meregallii*, *A. scurra*, *A. sternalis* ve *A. tenella virgo*'nun endemik türler olduğu belirlenmiştir. *A. diadema diadema* ve *A. sponsa* ise en yaygın ve bol olan türlerdir.

Literature

- Acatay, A., 1969. Tatbiki orman entomolojisi. I. Ü. Yay. No: 1359, Orman Fak. Yay. No:133, Kutulmuş Matbaası, İstanbul, 182 pp.
- Bily, S., 1974. Variation and subspeciation in *Anthaxia (Anthaxia) nigrojubata* Roubal (Coleoptera, Buprestidae). **Acta ent. bohemoslov.**, **71**: 318-321.
- Bily, S., 1980 a. 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., 1980 b. Taxonomic notes on *Anthaxia* (subgenus *Cratomerus*) from the Palearctic region (Coleoptera, Buprestidae). **Acta ent. bohemoslov.**, **77**: 271-279.
- Bily, S., 1984 a. A revision of the *Anthaxia (Melanthaxia) obesa* species-group (Coleoptera, Buprestidae). **Acta ent. bohemoslov.**, **81**: 259-267.
- Bily, S., 1984 b. A revision of the *Anthaxia (Melanthaxia) conradti* and *corsica* species-groups (Coleoptera, Buprestidae). **Acta ent. bohemoslov.**, **81**: 434-447.
- Bily, S., 1984 c. 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.
- Bily, S. & O.Brodsky, 1982. Taxonomical, biological and faunistical notes on Buprestidae and Cleridae from East Mediterranean (Coleoptera). **Türk. Bit. Kor. Derg.**, **6**: 185-194.
- Bodemeyer, H.E., 1900. Quer durch Klein-Asien in den Bulghar-Dagh. Die Druck und Verlags-Aktien Gesellschaft Vormals Dölter, Emmendingen, 169 pp.
- Curletti, G., 1984. Description d'une nouvelle espece de *Anthaxia* de la Turquie meridionale (Coleoptera, Buprestidae). **Acta ent. bohemoslov.**, **81**: 268-270.
- Curletti, G., 1994. I Buprestidi d'Italia Catalogo Tassonomico, Sinonimico, Biologico, Geonomico. Monografie di Natura Bresciana 19, 318 pp.
- Curletti, G. & G. Magnani, 1985. Una nuova *Anthaxia* della Turchia centrale (Coleoptera, Buprestidae). **Riv. Piem. st. nat.**, **6** : 241-247.
- Çanakçıoğlu, H., 1983. Orman Entomolojisi. I.Ü. Yay. No: 3152, Orman Fak. Yay. No: 349, Matbaa Teknisyenleri Basımevi, İstanbul, 536 pp.
- de Kerville, H.G., 1939. Récit sommaire du voyage et liste methodique des invertébrés 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., 1884. Coleopteres recueillis par M.L Abbe David a Akbes (Asie Mineure). **Annls. Soc. ent. Fr.**, Oct. 1883.
- Gobbi, G., 1986. Le piante ospiti dei Buprestidi Italiani. Primo quadro d'insieme (Coleoptera, Buprestidae). **Fragm. ent.**, **19** (1): 169-265.
- Heyden, L.V., E.Reitter & J.Weise, 1906. Catalogus Coleopterorum Europae, Caucasi et Armeniae Rossicae. Paskau, 774 pp.
- Karaman, Ş. & S.Tezcan, 1998. Contribution to the study of the genus *Anthaxia* (subgenus *Anthaxia*) Eschscholtz (Coleoptera, Buprestidae) of Turkey. **Türk. entomol. derg.**, **22** (1): 19-35.

- Lodos, N. & S. Tezcan, 1992. Türkiye Buprestidae (Coleoptera) faunasının genel görünümü ve zoocoğrafi yönden değerlendirilmesi. **Ege Üniversitesi Ziraat Fakültesi Dergisi**, **29** (1): 15-22.
- Novak, G., 1985. Das bis jetzt unbekannte Weibchen von *Anthaxia (Cratomerus) nupta* Kiesenwetter, 1857 (Coleoptera, Buprestidae). **Zeitschrift der Arbeitsgemeinschaft Österr. Entomologen**, **36** (3-4): 119-120.
- Obenberger, J., 1930. Buprestidae II. Coleopterorum Catalogus (Eds. W. Junk and S. Schenkling). **12** (111): 213-568.
- Obenberger, J., 1953. Resultats de l'expedition 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. **Finska Vetenskaps-Societetens Förhandlingar**, **55** (19): 272.
- Schaefer, L., 1949. Les Buprestides de France. Editions scientifiques du cabinet entomologique. E. Le Moutil 4, Rue Dumeni, Paris, 509 pp.
- Schimitschek, E., 1953. Türkiye orman böcekleri ve muhiti (Çev.: A. Acatay). İ.Ü. Yay. No: 556, Or. Fak. Yay. No: 24, Hüsnütabat Matbaası, İstanbul, 471 pp.
- Tezcan, S., 1997. Buprestidae (Coleoptera) fauna in Turkish forest ecosystems. **Ege Üniversitesi Ziraat Fakültesi Dergisi**, **34** (3): 33-39.
- Tosun, I., 1976. Akdeniz Bölgesi iğne yapraklı ormanlarında zarar yapan böcekler ve önemli türlerin parazit ve yırtıcıları üzerinde araştırmalar. **I.Ü.Orman Fakültesi Dergisi**, **26** (2): 218-254.
- Tuatay, N., A. Kalkandelen & N. Aysev, 1972. Nebat Koruma Müzesi Kataloğu (1961-1971). T.C. Tar. Bak. Zir. Müc. Zir. Kar. Gn. Md. Yay. Mes. Kit. Ser., 119 pp.
- Ulay, S.M. & S. Tezcan, 1998. Contribution to the study of the genus *Anthaxia* Eschscholtz, 1829 (subgenus *Haplanthaxia* Reitter, 1911) (Coleoptera, Buprestidae) of Turkey. **Türk. Entomol. Derg.**, **22** (2): 109-121.
- Winkler, A., 1924-1932. Catalogus Coleopterorum Regionis Palearcticae XVIII. Dittesgasse II. Wien, 620-623.