

A SYNOPSIS OF TURKISH CALLICHRMATINI (COLEOPTERA: CERAMBYCIDAE: CERAMBYCINAE)

Hüseyin Özdikmen*

* Gazi University, Faculty of Science, Department of Biology, 06500 Ankara, TURKEY. E-mail: ozdikmen@gazi.edu.tr

[Özdikmen, H. 2014. A synopsis of Turkish Callichromatini (Coleoptera: Cerambycidae: Cerambycinae). Munis Entomology & Zoology, 9 (1): 554-563]

ABSTRACT: The paper gives the members of Turkish Callichromatini with certain records of *Aromia moschata moschata* (Linnaeus, 1758) from Anatolia. The subspecific composition is discussed and a short key for the subspecies of *Aromia moschata* (Linnaeus, 1758) is also given in the text. Moreover, distribution maps are presented for all Turkish Callichromatini taxa on the base of provinces in Turkey.

KEY WORDS: Coleoptera, Cerambycidae, Cerambycinae, Callichromatini, Turkey

The tribe Callichromatini includes 21 genera in Palaearctic Region now. Most of them are distributed only Eastern or South-eastern Palaearctic Region and Oriental Region (see below).

The Palaearctic genera of tribe Callichromatini Swainson, 1840 as follows alphabetically:

Anubis J. Thomson, 1864 (SE Palaearctic Region (Pakistan to Taiwan) and Oriental Region), *Aphrodisium* J. Thomson, 1864 (E Palaearctic Region (E Siberia, Mongolia, Korea and India to Taiwan) and Oriental Region), *Aromia* Audinet-Serville, 1834 (Palaearctic Region), *Aromiella* Podaný, 1971 (SE Palaearctic Region (China) and Oriental Region), *Cataphrodisium* Aurivillius, 1907 (SE Palaearctic Region (China to Taiwan) and Oriental Region), *Chelidonium* J. Thomson, 1864 (E Palaearctic Region (Far East Russia to Japan and India to Taiwan) and Oriental Region), *Chloridolum* J. Thomson, 1864 (E Palaearctic Region (Far East Russia to Korea and Japan, and India to Taiwan) and Oriental Region), *Embrikstrandia* Plavilstshikov, 1931 (SE Palaearctic Region (China to Taiwan) and Oriental Region), *Gestriana* Podaný, 1971 (SE Palaearctic Region (China) and Oriental Region), *Helymaeus* J. Thomson, 1865 (Endemic to Yemen), *Ipothalia* Pascoe, 1867 (SE Palaearctic Region (India to China) and Oriental Region), *Laosaphrodisium* Bentanachs, 2012 (SE Palaearctic Region (China) and Oriental Region) *Osphrantheria* L. Redtenbacher, 1850 (C Palaearctic Region or Turano-Anatolian (Pakistan and Afghanistan to Turkey and Iraq)), *Pachyteria* Audinet-Serville, 1834 (SE Palaearctic Region (Nepal to Taiwan) and Oriental Region), *Polyzonus* Dejean, 1835 (E Palaearctic Region (East Siberia and Far East Russia, and India to Taiwan) and Oriental Region), *Pseudopolyzonus* Bentanachs, 2012 (SE Palaearctic Region (China) and Oriental Region), *Scalenus* Gistel, 1848 (SE Palaearctic Region (India to Taiwan) and Oriental Region), *Schmidtiana* Podaný, 1971 (SE Palaearctic Region (China) and Oriental Region), *Schwarzerium* Matsushita, 1933 (E Palaearctic Region (Korea and Japan to China and Taiwan)), *Turkaromia* Danilevsky, 1993 (E Palaearctic Region (Central Asia to China)), *Zonopterus* Hope, 1842 (SE Palaearctic Region (India to China) and Oriental Region).

The genus, *Helymaeus* J. Thomson, 1865, is endemic to Yemen. The widest distributed genus is *Aromia* Audinet-Serville, 1834 that has Palaearctic chorotype. In Europe, only the genus, *Aromia* Audinet-Serville, 1834, has been

represented among the genera of the tribe Callichromatini. After all, only the genera *Aromia* Audinet-Serville, 1834 and *Osphranteria* L. Redtenbacher, 1850, are represented in Turkey.

Subfamily Cerambycinae Latreille, 1802
Tribe Callichromatini Swainson, 1840

Genus *Aromia* Audinet-Serville, 1834: 559

Type sp.: *Cerambyx moschatus* Linnaeus, 1758

Terambus Gistel, 1848: [2] [unnecessary substitute name]

The Palearctic genus includes only 4 species as *Aromia bungii* Faldermann, 1835 (Korea and China, newly introduced to Germany), *Aromia japonica* Podaný, 1971 (Endemic to Japan), *Aromia moschata* (Linnaeus, 1758) (Europe, Siberia, Central Asia, Caucasus, Turkey, Iran, Middle East (Syria, Lebanon, Jordan, Iraq), North Africa (Algeria, Morocco, Tunisia)), *Aromia orientalis* Plavilstshikov, 1932 (Eastern Siberia, Far East Russia, Mongolia, Korea, Japan, China). As seen above, only the species, *Aromia moschata* (Linnaeus, 1758), is distributed in Turkey among the members of *Aromia* Audinet-Serville, 1834.

Species *Aromia moschata* (Linnaeus, 1758)

According to Löbl & Smetana (2010), the species *Aromia moschata* (Linnaeus, 1758) has 6 subspecies as

- The nominative subspecies *A. moschata moschata* (Linnaeus, 1758) (Europe, Caucasus, European Turkey, Kazahstan, Siberia, Mongolia),
 - odorata* DeGeer, 1775: 63 (*Cerambyx*)
 - chlorophana* Fischer von Waldheim, 1823: pl. xlviiii [= 1824: 237] (*Cerambyx*)
 - alata* A. Costa, 1855: 25
 - auctummalis* Westhoff, 1882: 241
 - thea* Reitter, 1894: 306
 - cupricollis* Pic, 1941: 5
 - perroudi* Pic, 1941: 5
- *A. moschata ambrosiaca* (Steven, 1809) (South Europe, Caucasus, Turkey, Iran, Middle East (Syria, Lebanon, Jordan, Iraq), North Africa (Algeria, Morocco, Tunisia)),
 - thoracica* Fischer von Waldheim, 1823: tab. 48, figs 3, 4. [1824: 236] (*Cerambyx*)
 - rosara* P. H. Lucas, 1847: pl. 41
 - rosara* A. Costa, 1855: 26 [HN]
 - melancholica* Reitter, 1895: 210
 - notaticollis* Pic, 1928: 9
- *A. moschata cruenta* Bogatchev, 1962 (Kirgizia and Tadjikistan),
- *A. moschata jankovskyi* Danilevsky, 2007 (only Kirgizia),
- *A. moschata sumbarensis* Danilevsky, 2007 (only Turkmenistan),
- *A. moschata vetusta* Bogatchev, 1962 (only Kazakhstan).

According to Löbl & Smetana (2010), only two subspecies as *Aromia moschata moschata* that recorded only for European Turkey, and *A. moschata ambrosiaca* that recorded only for Anatolia (Asian Turkey), are represented in Turkey.

Apparently, *Aromia moschata* is represented by two subspecies in Turkey. The nominate *Aromia moschata moschata* and *Aromia moschata ambrosiaca* (= *thoracica* Fischer, 1824). The subspecies status of *A. moschata ambrosiaca* populations depends on the percentage of red colored pronotum of specimens.

My studies on Turkish specimens that some specimens have totally blue-green pronotum and some specimens have red pronotum, clearly confirm that both subspecies are present in Turkey.

Moreover, with respect to voucher specimens from Artvin and Bursa provinces in NE and NW Anatolia respectively and reliable old references, the nominative *Aromia moschata moschata* is also represented in Anatolia (Asian Turkey). Anyway, the nominative subspecies has been reported by Çanakçıoğlu (1956), Villiers (1967), Öymen (1987), Adlbauer (1992), Tozlu et al. (2002), Özdikmen et al. (2005) and Özdikmen & Şahin (2006) from different localities in Anatolia (Asian Turkey) until now.

So, Turkish records of the subspecies *Aromia moschata moschata* and *Aromia moschata ambrosiaca* are presented as follows:

***Aromia moschata moschata* (Linnaeus, 1758) (Map 1)**

European Turkey:

Istanbul prov.: Belgrad Forest (Acatay, 1943); European Turkey (Althoff & Danilevsky, 1997; Löbl & Smetana, 2010).

Anatolia (Asian Turkey):

Bursa prov.: near Soğukpınar / Baraklı village (bank of Nilüfer stream) (Çanakçıoğlu, 1956); Tokat prov.: Arguslu (Niksar) (Villiers, 1967); Balıkesir prov.: Kuşçenneti National Park (Öymen, 1987); Tunceli prov.: Pülümür (Adlbauer, 1992); Erzurum prov.: University Campus, Samsun prov.: Central (Tozlu et al., 2002); Ankara prov. (Özdikmen, et al., 2005); Turkey: 2 specimens without label (Özdikmen, 2006); Kocaeli prov.: İzmit (Özdikmen & Şahin, 2006); Artvin prov.: Hopa and Bursa prov.: Gemlik (personal data).

***Aromia moschata ambrosiaca* (Steven, 1809) (Map 2)**

Anatolia (Asian Turkey):

Hatay prov.: Akbez (Pic, 1892); Bilecik prov. as *A. moschata* var. *thoracica* (Bodemeyer, 1906); Turkey (Acatay, 1948, 1961, 1963, 1968; Bodenheimer, 1958; Önder et al., 1987); Antalya prov.: Central as *A. moschata* var. *thoracica* (Demelt & Alkan, 1962; Demelt, 1963); Adana prov., Artvin prov. as *A. moschata ambrosiaca* (Villiers, 1967); İzmir prov.: Central / Kınık, Manisa prov.: Demirci as *A. moschata* var. *ambrosiaca* (Gül-Zümreoğlu, 1972); Adana prov. (Gül-Zümreoğlu, 1972); İzmir prov. : Bergama (Tuatay et al., 1972); Aydın prov.: Nazilli, İzmir prov. : Bergama (Kınık) as *A. moschata* ssp. *ambrosiaca* m. *thoracica* (Gül-Zümreoğlu, 1975); Antalya prov., Aydın prov., İzmir prov. (Erdem & Çanakçıoğlu, 1977; Çanakçıoğlu, 1983); İzmir prov.: Selçuk, Antalya prov.: Elmalı as *A. moschata ambrosiaca* (Adlbauer, 1992); Kahramanmaraş prov. (Kanat, 1998); Adıyaman prov.: Karadut village env. as *A. moschata* ssp. *ambrosiaca* (Rejzek & Hoskovec, 1999); Isparta prov. as *A. moschata thoracica* (Tauzin, 2000); South and East Turkey as *A. moschata ambrosiaca* (Jenis, 2001); Antalya prov.: Central / Arapsuyu / Manavgat / Korkuteli / Serik, Bingöl prov.: Solhan (Buğlan pass), Burdur prov.: Bucak (Çamlık), Çanakkale prov.: Pazarköy, Kahramanmaraş prov.: Central as *A. moschata ambrosiaca* (Tozlu et al., 2002); Manisa prov.: Muradiye, İzmir prov. : Kemalpaşa (Ören) as *A. moschata ambrosiaca* (Tezcan & Rejzek, 2002); Turkey as *A. moschata ambrosiaca* (Sama, 2002); Antalya prov.: Elmalı (near Çalpınar), Yozgat prov.: Çamlık National Park (Özdikmen & Çağlar, 2004); İzmir prov.: Bergama as *A. moschata ambrosiaca* (Özdikmen, et al., 2005); Antalya prov.: Manavgat as *A. moschata ambrosiaca* (Özdikmen & Demir, 2006); Artvin prov. as *A. moschata ambrosiaca* (Özdikmen & Şahin, 2006); Kahramanmaraş prov.: Pazarcık (Bağdımışağır) / Başkonuş forest area / Andırın (Haştırın village) / Nurhak (Taflar) as *A. moschata ambrosiaca* (Özdikmen & Okutaner, 2006); Konya prov.: Taşkent (Turgut & Özdikmen, 2010); Osmaniye prov.: Düziçi (Özdikmen, Güven & Gören, 2010); Düzce prov.: Central (Özdikmen, Mercan & Tunç, 2012); Balıkesir prov.: Erdek (personal data).

As seen above, the subspecies *Aromia moschata moschata* is represented in both European Turkey and Anatolia (Asian Turkey), while the subspecies *Aromia moschata ambrosiaca* only in Anatolia (Asian Turkey). The nominative

subspecies is distributed only in Northern territories of Turkey (European Turkey + Asian Turkey). In case the subspecies *Aromia moschata ambrosiaca* is distributed mostly in other parts of Anatolia (Asian Turkey). However, the records of Bilecik, Artvin, Çanakkale, Yozgat, Düzce and Balıkesir provinces are showed that the subspecies is also distributed in Northern Anatolia. From this point of view, it can say that known distribution patterns of these subspecies are not available the rule of nonoverlapping ranges theoretically in North Anatolia.

Also, the same status exists in Spain and Italy. The species is represented by two subspecies as *Aromia moschata moschata* and *Aromia moschata ambrosiaca* in the countries as in Turkey. For each country (Spain, Italy, Turkey), *Aromia moschata ambrosiaca* is regarded predominant. The nominative subspecies is distributed only in Northern parts of the countries: For Spain: only in Northern parts (Pyrenees and the Cantabrian coast), for Italy: North to Central parts and for Turkey: only Northern parts (European Turkey and Asian Turkey). The other subspecies *Aromia moschata ambrosiaca* is distributed in other parts of the countries.

On the other side, I found some specimens that are in my personal collection of the subspecies *Aromia moschata ambrosiaca* from Turkey, more or less resemble *A. moschata jankovskyi* Danilevsky, 2007 that described from Kirgizia (Figs. 1, 2A,B). I decided that these specimens do not describe a new subspecies due to some specimens were collected from the same locality and date with the specimens of clearly *Aromia moschata ambrosiaca* (Steven, 1809) that have totally red pronotum.

However, *Aromia moschata ambrosiaca* has at least two forms based on different coloration of pronotum in each country. Typical form has totally red colored pronotum except anterior and posterior dark colored transverse bands (e.g. Vives, 2001) and the other has red with more or less wide central blue-green line on disc of pronotum (Figs. 1, 3A,B,C, 4A,B). The later is the same as the Turkish specimens that more or less resemble *A. moschata jankovskyi*. Even, these forms are more or less available for populations of *Aromia moschata ambrosiaca* in Caucasus (Armenia and Azerbaijan). So, as stated by Danilevsky (2007), the status of *A. moschata jankovskyi* Danilevsky, 2007 is doubtful now to the future investigation.

Moreover, I prepared male genitaliae from both forms in Turkey. As a result of this, the genitaliae of both forms are the same (Fig. 5). So, I decided that both forms should be belonging to the same subspecies.

A short key for the subspecies of *Aromia moschata* Linnaeus, 1758

1. Pronotum totally blue, green or blue-green colored.....2
- . Pronotum more or less red colored.....3

2. Pronotum totally blue or blue-green colored; in male, antennae never protruding beyond elytral apices by 4 apical joints completely, central area of pronotum almost unpunctuated.....*moschata moschata* Linnaeus, 1758
- . Pronotum totally green with slight golden lustre; in male, antennae protruding beyond elytral apices by 4 apical joints, central area of pronotum with deep dense punctuation.....*moschata sumbarensis* Danilevsky, 2007

3. Antennae and legs always totally red.....*moschata cruenta* Bogatchev, 1962
- . Antennae and legs always totally blue or blue-green.....4

4. Pronotum with greenish lustre and small red areas, so from the first view looks totally green.....*moschata vetusta* Bogatchev, 1962

- . Pronotum totally red or red with wide central blue-green line on disc except anterior and posterior dark colored transverse bands.....two subspecies
*moschata ambrosiaca* (Steven, 1809)
*moschata jankovskyi* Danilevsky, 2007

Genus *Osphranteria* L. Redtenbacher, 1850: 50

Type sp.: *Osphranteria suaveolens* L. Redtenbacher, 1850

Quettania Schwarzer, 1931: 62

Type sp.: *Quettania coeruleipennis* Schwarzer, 1931

The Palaearctic genus includes only 3 species as *O. coerulescens* L. Redtenbacher, 1850 (Turkey, Iran, Iraq and Pakistan), *O. lata* Pic, 1956 (Iran and Afghanistan) and *O. suaveolens* L. Redtenbacher, 1850 (Iran and Afghanistan). As seen above, only the species, *O. coerulescens* L. Redtenbacher, 1850, is distributed in Turkey among the members of *Osphranteria* L. Redtenbacher, 1850.

Species *Osphranteria coerulescens* L. Redtenbacher, 1850

coeruleipennis Schwarzer, 1931: 63 (*Quettania*)

mirabilis Podany, 1980: 231 (*Polyzonus*)

inaurata Holzschuh, 1981: 98

According to Löbl & Smetana (2010), the species has 2 subspecies as

- The nominative subspecies *O. coerulescens coerulescens* L. Redtenbacher, 1850 (Iran, Iraq, Pakistan),
- *O. coerulescens inaurata* Holzschuh, 1981 (Turkey and Iran).

Also according to Löbl & Smetana (2010), the species is represented only by *O. coerulescens inaurata* Holzschuh, 1981 in Turkey. However, *O. coerulescens inaurata* Holzschuh, 1981 was recently regarded by Bentanachs (2012) as a synonym of *Osphranteria coerulescens*, not a subspecies. On the other side, the endemic genus *Quettania* for Pakistan was established by Schwarzer (1931) with the type species *Quettania coeruleipennis* Schwarzer, 1931. Recently, Bentanachs (2012) stated that the type species *Quettania coeruleipennis* Schwarzer, 1931 and *Polyzonus mirabilis* Podany, 1980 are synonyms of *Osphranteria coerulescens*. So, the genus *Quettania* also is a synonym of the genus *Osphranteria*.

From this point of view, Turkish records of the species *Osphranteria coerulescens* L. Redtenbacher, 1850 are presented as follows:

***Osphranteria coerulescens* L. Redtenbacher, 1850 (Map 3)**

Anatolia (Asian Turkey):

Diyarbakır prov. (İren & Ahmed, 1973); Hakkari prov.: Sat Mountain, Oramar (Dağlıca) as the type locality of *O. coerulescens inaurata* (Holzschuh, 1981); Siirt prov.: Kuzluca, Hakkari prov.: Çığlısuyu valley, Suvarihalil pass (Adlbauer, 1992); Elazığ prov.: Harput, Hakkari prov.: Şemdinli (Central, Derecik), Yüksekova (Önalp, 1988b); Adıyaman prov.: Nemrut Mt., Karadut village (Rejzek & Hoskovec, 1999); Van prov.: Çatak (Özdikmen, et al., 2005); Erzincan prov.: Eğin (personal data).

As seen above, the species is represented only in South-eastern and Eastern Anatolia (Asian Turkey) for Turkey.

ACKNOWLEDGEMENT

The author wish to thank to Naciye Cihan (Turkey) for assistances during the preparation of the paper.

LITERATURE CITED

- Acatay, A.** 1943. İstanbul çevresi ve bilhassa Belgrad ormanındaki zararlı orman böcekleri, mücadeleleri ve işletme üzerine tesirleri. T. C. Ziraat Vekaleti Yüksek Ziraat Enstitüsü Çalışmaları, Ankara, 142: 163 pp.
- Acatay, A.** 1948. Zararlı orman böcekleri, Teşhis anahtarı. T. C. Tarım Bakanlığı Orman Genel Müdürlüğü Yay., İstanbul, 76: 113 pp.
- Acatay, A.** 1961. Zararlı orman böcekleri, Teşhis anahtarı. İstanbul Üniversitesi Yay., İstanbul, 938: 152 pp.
- Acatay, A.** 1963. Tatbiki orman entomolojisi. İstanbul Üniversitesi Yay., İstanbul, 1068: 169 pp.
- Acatay, A.** 1968. Zararlı orman böcekleri, Teşhis anahtarı. İstanbul Üniversitesi Yay., İstanbul, 1358: 153 pp.
- Adlbauer, K.** 1992. Zur Faunistik und Taxonomie der Bockkäferfauna der Türkei II (Coleoptera, Cerambycidae). Entomofauna, 13 (30): 485-509.
- Althoff, J. & Danilevsky, M. L.** 1997. A Check-List of Longicorn Beetles (Coleoptera, Cerambycoidea) of Europe. Slovensko Entomološko Društvo Štefana Michielija. Ljubljana, 64 pp.
- Bentanachs, J.** 2012. Revision del genero *Polyzonus* Dejean, 1835 y generos afines (Coleoptera, Cerambycidae, Callichromatini). Cahiers Magellanes 8 (N.S.): 1-100.
- Bodemeyer, H. E. V.** 1906. Beitrage zur Käferfauna von Klein Asien - Deutsche Entomologische Zeitschrift, 2: 417-437.
- Bodenheimer, F. S.** 1958. Türkiye'de ziraate ve ağaçlara zararlı olan böcekler ve bunlarla savaş hakkında bir etüt. Bayur Matbaası, Ankara, 347 pp.
- Çanakçıoğlu, H.** 1956. Bursa ormanlarında entomolojik araştırmalar. İstanbul Üniversitesi Yay., Orman Fakültesi Yay. No: 690, İstanbul, 9-13.
- Çanakçıoğlu, H.** 1983. Orman Entomolojisi: Özel bölüm. İstanbul Üniversitesi Orman Fakültesi Yay. No: 349, İstanbul, 535 pp.
- Danilevsky, M. L.** 2007. New species of genus *Cortodera* Mulsant, 1863 from East Kazakhstan and two new subspecies of *Aromia moschata* (Linnaeus, 1758) from Central Asia (Coleoptera, Cerambycidae). Caucasian Entomological Bulletin, 3 (1): 47-49.
- Demelt, C. V.** 1963. Beitrag zur Kenntnis der Cerambycidenfauna Kleinasiens und 13. Beitrag zur Biologie palaearkt. Cerambyciden, sowie Beschreibung einer neuen *Oberea*-Art. Entomologische Blätter, 59 (3): 132-151.
- Demelt, C. V. & Alkan, B.** 1962. Short information of Cerambycidae Fauna of Turkey. Bitki Koruma Bülteni, 2 (10): 49-56.
- Erdem, R. & Çanakçıoğlu, H.** 1977. Türkiye odun zararlıları. İstanbul Üniversitesi Orman Fakültesi Yay., İstanbul, 113-134.
- Gül-Zümreoğlu, S.** 1972. Catalogue of Insect and common pests (1928-1969). T. C. Publications of Agriculture Ministry, Bornova, İzmir, 119 pp.
- Gül-Zümreoğlu, S.** 1975. Investigations on taxonomy, host plants and distribution of the Longhorned Beetles (Cerambycidae-Coleoptera) in Aegean Region. T. C. Ministry of Food, Agriculture and Stockbreeding, No : 28, , İstiklal Press, İzmir, 208 pp.
- Holzschuh, C.** 1981. Zwanzig neue Bockkafer aus Europa und Asien (Col.: Cerambycidae). Koleopterologische Rundschau, 55: 91-112.
- İren, Z. & Ahmed, M. K.** 1973. Microlepidoptera and pests of fruit-trees in Turkey. Bitki Koruma Bülteni, Ankara, Turkey, 1: 41-42.
- Jenis, I.** 2001. Long-horned Beetles, Vesperidae & Cerambycidae of Europe I. Atelier Regulus, Zlin, Czechoslovakia, 333 pp.

- Kanat, M.** 1998. Kahramanmaraş ormanlarında önemli zararlı böceklerin araştırılması. Yüksek Lisans Tezi, Karadeniz Teknik Üniversitesi, Fen Bilimleri Enstitüsü, Trabzon, 41-127.
- Löbl, I. & Smetana, A.** 2010. Catalogue of Palaearctic Coleoptera, Volume 6, Chrysomeloidea. Apollo Books, Stenstrup, 924 pp.
- Önalp, B.** 1988. First record of the beetle *Osphranteria coerulescens* Redtenbacher, 1850 (Coleoptera, Cerambycidae) from Turkey. *Zoology in the Middle East*, 2 (1): 113-114.
- Önder, F., Karsavuran, Y., Tezcan, S. & Önder, P.** 1987. Scientific and Turkish names of some useful and harmful species of Agricultural, Forestic and Domestic Animals in Turkey. T. C. Ministry of Agriculture, Ankara (Turkish with English summary).
- Öymen, T.** 1987. The Forest Cerambycidae of Turkey. İ. Ü. Forest Faculty, İstanbul, 146 pp.
- Özdikmen, H.** 2006. Contribution to the knowledge of Turkish longicorn beetles fauna (Coleoptera: Cerambycidae). *Munis Entomology & Zoology*, 1 (1): 71-90.
- Özdikmen, H. & Çağlar, Ü.** 2004. Contribution to the knowledge of longhorned beetles (Coleoptera, Cerambycidae) from Turkey, Subfamilies Prioninae, Lepturinae, Spondylidinae and Cerambycinae. *J. Ent. Res. Soc.*, 6 (1): 39-69.
- Özdikmen, H. & Demir, H.** 2006. Notes on longicorn beetles fauna of Turkey (Coleoptera: Cerambycidae). *Munis Entomology & Zoology*, 1 (1): 157-166.
- Ozdikmen, Güven & Gören, 2010)
- Özdikmen, H., Mercan, N. & Tunç, H.** 2012. Longhorned beetles of Düzce province in Turkey (Coleoptera: Cerambycidae). *Munis Entomology & Zoology*, 7 (2): 714-731.
- Özdikmen, H. & Okutaner, A. Y.** 2006. The longhorned beetles fauna (Coleoptera, Cerambycidae) of Kahramanmaraş province. *G. U. Journal of Science*, 19 (2): 77-89.
- Özdikmen, H., Özdemir, Y. & Turgut, S.** 2005. Longhorned Beetles Collection of the Nazife Tuatay Plant Protection Museum, Ankara, Turkey (Coleoptera, Cerambycidae). *J. Ent. Res. Soc.*, 7 (2): 1-33.
- Özdikmen, H. & Şahin, Ö.** 2006. İç Anadolu Ormançılık Araştırma Müdürlüğü, Entomoloji Müzesi (Türkiye, Ankara) Teke Böcekleri Koleksiyonu (Coleoptera, Cerambycidae). *G. U. Journal of Science*, 19 (1): 1-8.
- Turgut, S. & Özdikmen, H.** 2010. New data for Turkish longhorned beetles fauna from Southern Turkey (Coleoptera: Cerambycidae). *Munis Entomology & Zoology*, 5, suppl.: 859-889.
- Pic, M.** 1892. Longicornes. Voyage de M. Charles Delagrange dans la Haute-Syrie Année 1891. *Annales de la Société Entomologique de France*, 61: 413-422.
- Rejzek, M. & Hoskovec, M.** 1999. Cerambycidae of Nemrut Dağı National Park (Anatolia, South-East Turkey). *Biocosme Mésogéen, Nice*, 15 (4): 257-272.
- Sama, G.** 2002. Atlas of the Cerambycidae of Europe and the Mediterranean Area, Volume I, Kabourek, Zlin, 173 pp.
- Schwarzer, B.** 1931. Beitrag zur Kenntnis der Cerambyciden (Ins. Col.). *Senckenbergiana*, 12: 59-78.
- Tauzin, P.** 2000. Complement a l'inventaire des Coleopteres Cerambycidae de Turquie. *L'Entomologiste*, 56 (4): 151-153.
- Tezcan, S. & Rejzek, M.** 2002. Longhorn beetles (Coleoptera: Cerambycidae) recorded in cherry orchards in Western Turkey. *Zoology in the Middle East*, 27: 91-100.
- Tozlu, G., Rejzek, M. & Özbek, H.** 2002. A contribution to the knowledge of Cerambycidae (Coleoptera) fauna of Turkey. Part I: Subfamilies Prioninae to Cerambycinae. *Biocosme Mésogéen, Nice*, 19 (1-2): 55-94.
- Tuatay, N., Kalkandelen, A. & Aysev, N.** 1972. Bitki Koruma Müzesi Böcek Kataloğu (1961-1971). T. C. Tarım Bakanlığı, Ankara, 53-55.

Villiers, A. 1967. Coléoptères Cérambycides de Turquie (1. Partie) - L'Entomologiste, 23 (1): 18-22.

Vives, E. 2001. Atlas fotográfico de los cerambycidos ibero-baleares (Coleoptera: Cerambycidae), Barcelona, 287 pp.



Figure 1. A female specimen of *Aromia moschata ambrosiaca* from Kahramanmaraş province in Turkey.

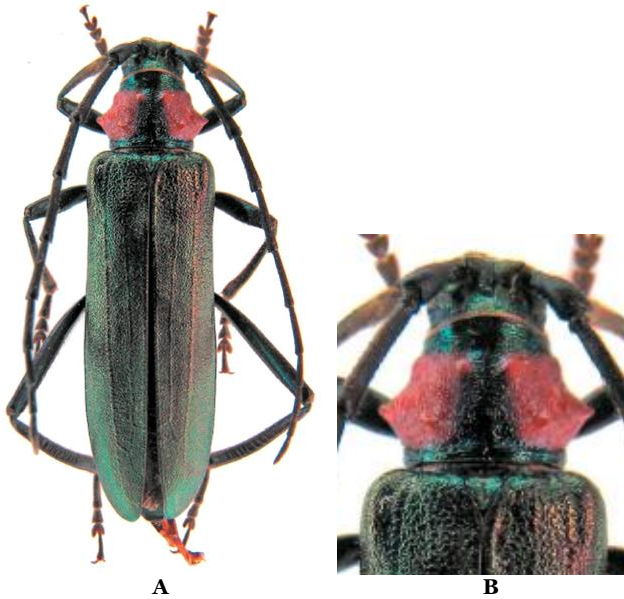


Figure 2. *Aromia moschata jankovskyi*, A. Habitus, B. Pronotal coloration (from Danilevsky, 2007).

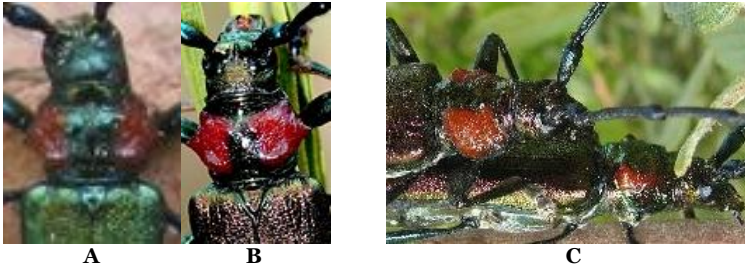


Figure 3. Spanish *Aromia moschata ambrosiaca* A. Male, B. Female, C. Male & female (from <http://www.biodiversidadvirtual.org>).

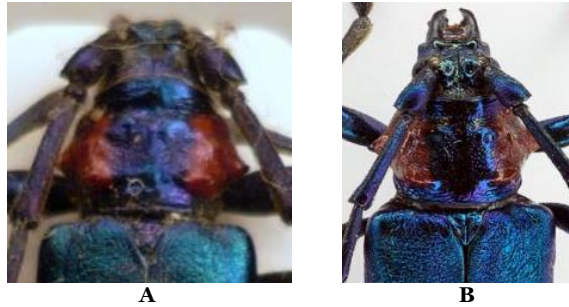


Figure 4. Italian *Aromia moschata ambrosiaca* A. Male, B. Female (from <http://www.entomologiitaliani.net>).

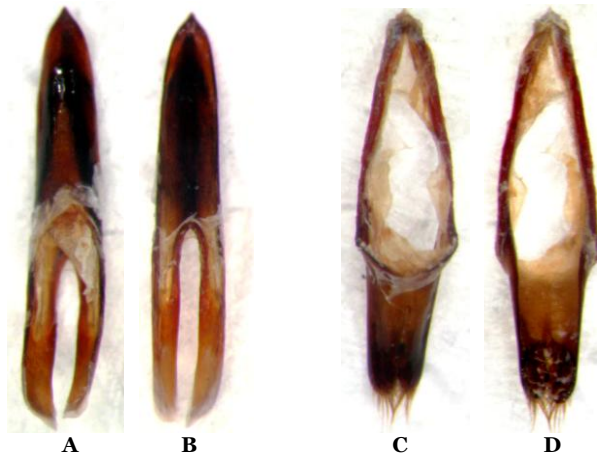
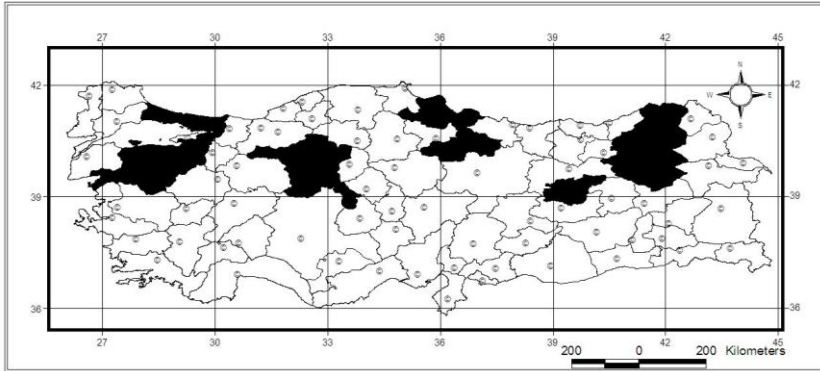
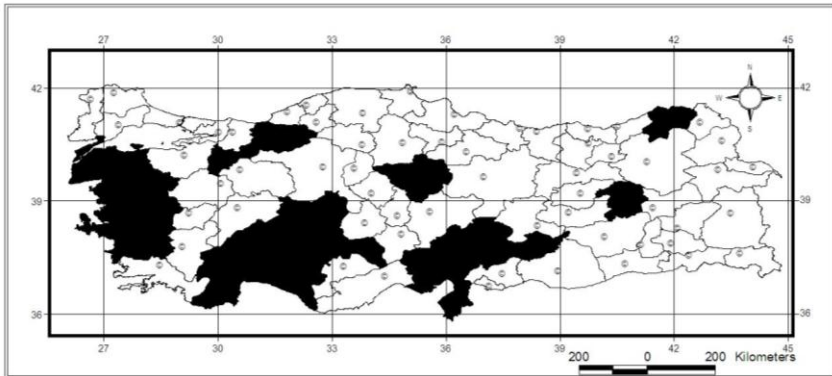


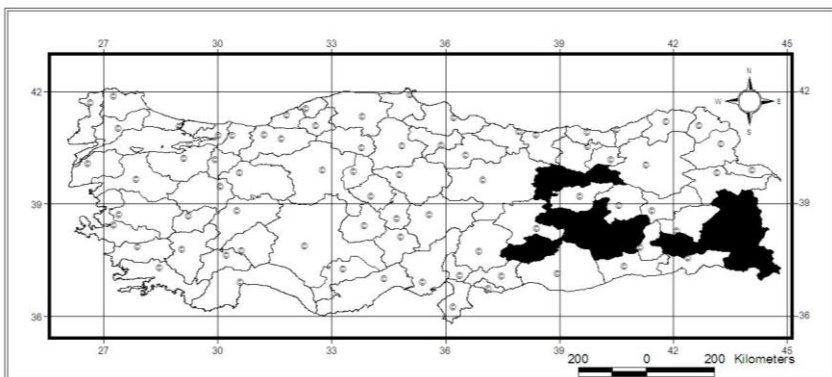
Figure 5. Male genitalia of *Aromia moschata ambrosiaca* A. Aedeagus (dorsal view), B. Aedeagus (ventral view), C. Paramers (dorsal view), D. Paramers (ventral view).



Map 1. Distribution map of *Aromia moschata moschata* in Turkey.



Map 2. Distribution map of *Aromia moschata ambrosiaca* in Turkey.



Map 3. Distribution map of *Osphranteria coerulea* in Turkey.