

**CHOROTYPE IDENTIFICATION
FOR TURKISH CHRYSOMELOIDEA (COLEOPTERA)
PART VII – CHRYSOMELIDAE:
CHRYSOMELINAE AND TIMARCHINAE**

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ABSTRACT: The paper gives chorotype identifications for Turkish Chrysomelinae and Timarchinae (Coleoptera: Chrysomelidae). In association with this, some zoogeographical remarks are also given in the text.

KEY WORDS: Chrysomelinae, Timarchinae, Chrysomelidae, Fauna, Zoogeography, Turkey.

Works on Turkish leaf beetles began in late 19th century. Especially since the last century, they were increased as chiefly faunistic and taxonomic works. Recently, they continue with an increased speed.

Clearly, there is no any work on zoogeographical regionalisation of Turkish Chrysomeloidea related the whole territories of Turkey or regions of Turkey (see Part I for regions in Turkey) at the present.

As known, a series work was planned that is aim to expose zoogeographical regionalisations of Turkish Chrysomeloidea fauna. Özdikmen & Kaya (2014), Özdikmen & Mercan (2014), Özdikmen & Cihan (2014), Özdikmen & Özbek (2014), Özdikmen & Kavak (2014) and Özdikmen & Topcu (2014) are the previous works for this aim. The present study is attempted as the seventh step of this aim.

ARRANGEMENT OF INFORMATION

Information in the present text is given in the following order:

The subfamily, genus, species and subspecies names are given simply.

For each genus, species and subspecies are presented with the author name and date of description.

The data, **Range**, **Records in Turkey**, **Remarks** and **Chorotype** under the title for each taxon is given.

Range. In these parts, the whole distribution areas in world are provided for each taxon as in Löbl & Smetana (2010) (see the cited reference for the abbreviations).

Records in Turkey. In these parts, the whole distribution areas in Turkey are provided for each taxon as in Ekiz et al. (2013) (see the cited reference for the abbreviations).

Remarks. In these parts, regional and general distribution in Turkey are given chiefly.

Chorotype. The present zoogeographical characterization.

The present zoogeographical characterization is based on the chorotype classification of Anatolian fauna, recently proposed by Vigna Taglianti et al. (1999). In the text, as far as possible one chorotype description can be identified for each taxon. But this kind of description can not be possible for some taxa, so two or more chorotypes are used for them.

With this purpose, Löbl & Smetana (2010) for the range in the world, Ekiz et al. (2013) for the provincial distribution in Turkey and Özdikmen et al. (2014) for the fauna of Turkey are used chiefly.

According to Özdikmen et al. (2014), Turkish Chrysomelinae comprises of 102 species group taxa (50 species + 52 subspecies) of 15 genera, and Turkish Timarchinae comprises of 5 species group taxa (2 species + 3 subspecies) of 1 genus.

Subfamily CHRYSOMELINAE

Genus *Chrysolina* Motschulsky, 1860

Subgenus *Bittotaenia* Motschulsky, 1860

C. aeneipennis (Reiche & Saulcy, 1858)

Range: N: AG EG LB A: IS JO SY **Records in Turkey:** TR-A: AMA, KAR **Remarks:** The species has been recorded only from 2 Turkish regions as Black Sea Region and Central Anatolian Region until now. **Chorotype:** Mediterranean or E-Mediterranean

C. grata (Faldermann, 1837)

C. g. grata (Faldermann, 1837)

Range: E: GG A: AF IN IQ TM TR **Records in Turkey:** TR-A: URF **Remarks:** The subspecies has been recorded only from South-Eastern Anatolian Region in Turkey until now. **Chorotype:** Turano-Mediterranean (Turano-Anatolian)

C. salviae (Germar, 1824)

C. s. salviae (Germar, 1824)

Range: E: AB AL AR BH BU CR GG GR HU IT MC RO SK SL ST TR YU "Circassia" A: CY IN IS LE SY TR **Records in Turkey:** TR-A: ADA, AFY, AMA, ANK, BIL, ELA, IZM, KON, NIG, TRA – TR-E **Remarks:** The subspecies is rather widely distributed in Turkey. It has been recorded from 6 Turkish regions. But it has not been recorded only from South-Eastern Anatolian Region until now. **Chorotype:** Turano-Mediterranean (Turano-Apeninian)

C. s. compuncta Weise, 1889

Range: A: CY LE SY TR **Records in Turkey:** TR-A: MER **Remarks:** The subspecies has been recorded only from Mediterranean Region in Turkey until now. **Chorotype:** E-Mediterranean (Palaestino-Cyprioto-Taurian)

Subgenus *Chalcoidea* Motschulsky, 1860

C. analis (Linnaeus, 1767)

Range: E: AU BE BY CT CZ DE EN FI FR GE HU LA NL NR NT PL RO SK SP ST SZ UK N: AG **Records in Turkey:** TR-A: AFY, AKS, ANK, ESK, KAR, KAY, KRB, NIG, SIN **Remarks:** The species has been recorded only from 3 Turkish regions as Aegean Region, Black Sea Region and Central Anatolian Region until now. **Chorotype:** Mediterranean + C and E-European

C. marginata (Linnaeus, 1758)

C. m. marginata (Linnaeus, 1758)

Range: E: AL AR AU BH BU BY CR CZ DE FI FR GE GG GR HU IT LA LS LT MC MD NL NR NT PL RO SK SL ST SV SZ UK YU A: TR **Records in Turkey:** TR-A: ANT, ARD, ART, BAY, ERZ, ESK, EZU, KAH, KON, KRS, NEV, SIV, TOK **Remarks:** The subspecies has been recorded only from 4 Turkish regions. But it has not been recorded from Aegean Region, Marmara Region and South-Eastern Anatolian Region until now. **Chorotype:** C and E-European

C. m. unificans Bechyné, 1950

Range: E: "Caucasus" A: TR **Records in Turkey:** TR-A: ISP, VAN **Remarks:** The

subspecies has been recorded only from 2 Turkish regions as Eastern Anatolian Region and Mediterranean Region until now. **Chorotype:** SW-Asiatic (Anatolo-Caucasian)

***C. sellata* Weise, 1894**

Range: A: TR **Records in Turkey:** TR-A: ADA, AMA, KON, KAY, MER, SIV, TOK
Remarks: The endemic species has been recorded only from 3 Turkish regions as Black Sea Region, Central Anatolian Region and Mediterranean Region until now. **Chorotype:** Anatolian

***C. songarica* Gebler, 1843**

Range: E: AB AR GG ST A: IN IS KZ TR **Records in Turkey:** TR-A: AMA, ANK, ART, ERZ, EZU, IST, IZM, MAR, MER – TR-E: KRK **Remarks:** The species is probably rather widely distributed in Turkey. It has been recorded from all Turkish regions. But it has not been recorded from the most Parts of all Regions until now. **Chorotype:** SW-Asiatic (Anatolo-Caucasian + Irano-Caucasian + Irano-Anatolian + Irano-Palaestinian)

***C. tesari* Roubal, 1936**

***C. t. tesari* Roubal, 1936**

Range: E: AB AR GG A: TR **Records in Turkey:** TR-A: ARD, KRS **Remarks:** The subspecies has been recorded only from Eastern Anatolian Region in Turkey until now. **Chorotype:** SW-Asiatic (Anatolo-Caucasian)

Subgenus *Chrysolina* Motschulsky, 1860

***C. blanchei* (Fairmaire, 1865)**

***C. b. blanchei* (Fairmaire, 1865)**

Range: A: CY IS LE SY TR **Records in Turkey:** TR-A: HAT, KRB **Remarks:** The subspecies has been recorded only from 2 Turkish regions as Black Sea Region and Mediterranean Region until now. **Chorotype:** E-Mediterranean (Palaestino-Cyprioto-Taurian)

***C. staphylaea* (Linnaeus, 1758)**

***C. s. staphylaea* (Linnaeus, 1758)**

Range: E: AU BH BU BY CR CT CZ FR GB GE GG HU IT LA LS LT NT PL PT RO SK SL SP ST SZ UK YU “Caucasus” N: LB A: TR WS **NAR Records in Turkey:** TR-A: ANK, EZU, KAS, KRB **Remarks:** The subspecies has been recorded only from 3 Turkish regions as Black Sea Region, Central Anatolian Region and Eastern Anatolian Region until now. **Chorotype:** W-Palaearctic + Nearctic or Holarctic

Subgenus *Chrysolinopsis* Bechyné, 1950

***C. americana* (Linnaeus, 1758)**

Range: E: AL BE CR FR GB GR IT LA MA MC PT SL SP SZ YU N: AG MO TU A: TR **Records in Turkey:** TR-A: AYD, ANK, ANT, IZM, MAN, MUG **Remarks:** The species has been recorded only from 3 Turkish regions as Aegean Region, Central Anatolian Region and Mediterranean Region until now. **Chorotype:** Mediterranean

Subgenus *Chrysomorpha* Motschulsky, 1860

***C. cerealis* (Linnaeus, 1767)**

***C. c. cerealis* (Linnaeus, 1767)**

Range: E: AL AU BH BU BY CR CZ DE FI FR GB GE GG GR HU IC LA LS LT MC NL NR NT PL RO SK SL SP SV SZ TR UK YU **Records in Turkey:** TR-A: SAM **Remarks:** The subspecies has been recorded only from Black Sea Region in Turkey until now. **Chorotype:** European

***C. c. cyaneoaurata* Motschulsky, 1860**

Range: A: ES FE KZ MG TR **Records in Turkey:** TR-A **Remarks:** Provincial distribution of the subspecies is unknown. However, it should be distributed very likely only in E Turkey. **Chorotype:** Sibero-European

Subgenus *Colaphodes* Motschulsky, 1860***C. haemoptera* (Linnaeus, 1758)*****C. h. haemoptera* (Linnaeus, 1758)**

Range: E: AL AU BE BH BU BY CR CT CZ DE EN FI FR GB GE GG GR HU IT LA LS LT LU MC MD NL NT PL PT RO RU SK SL SP ST SV SZ TR UK YU "Caucasus" **A:** IN TR
Records in Turkey: TR-A **Remarks:** Provincial distribution of the subspecies is unknown. However, it should be distributed very likely only in Asian Turkey. **Chorotype:** European

***C. h. byzantia* Jolivet, 1951**

Range: A: TR **Records in Turkey:** TR-E: IST, KRK **Remarks:** The endemic subspecies has been recorded only from European Turkey in Marmara Region in Turkey until now. **Chorotype:** Anatolian

Subgenus *Colaphoptera* Motschulsky, 1860***C. abchasica* Weise, 1892**

Range: A: TR **Records in Turkey:** TR-A **Remarks:** Provincial distribution of the endemic species is unknown. **Chorotype:** Anatolian

***C. planicollis* (Breit, 1919)**

Range: A: TR **Records in Turkey:** TR-A: BAY, TRA **Remarks:** The endemic species has been recorded only from Black Sea Region in Turkey until now. **Chorotype:** Anatolian

Subgenus *Colaphosoma* Motschulsky, 1860***C. sturmi* Westhoff, 1882**

Range: E: AL AU BE BH BU BY CR CT CZ DE EN FI FR GB GE HU IT LA LS LT LU MC MD NL NR NT PL RO RU SK SL SP ST SV SZ TR UK YU "Caucasus" **A:** ES KZ WS **Records in Turkey:** TR-A **Remarks:** Provincial distribution of the species is unknown. **Chorotype:** Sibero-European

Subgenus *Diachalcoidea* Bechyné, 1955***C. sacarum* (Weise, 1890)*****C. s. sacarum* (Weise, 1890)**

Range: A: AF IN KI TD TM UZ **Records in Turkey:** TR-A: MUS **Remarks:** The subspecies has been recorded only from Eastern Anatolian Region in Turkey until now. **Chorotype:** Centralasiatic + SW-Asiatic (Irano-Anatolian)

Subgenus *Erythrochrysa* Bechyné, 1950***C. polita* (Linnaeus, 1758)*****C. p. polita* (Linnaeus, 1758)**

Range: E: AL AU BH BU BY CR CT CZ DE FI FR GB GE GR HU IT LA LT MC MD NL NR NT PL RO SK SL SP ST SV SZ TR UK YU **A:** CY IS KI KZ LE MG SY TR UZ **Records in Turkey:** TR-A: AMA, ART, CNK, EZU, ISP, KAH, KAS, KRB, MAR, MER, NIG, ORD, RIZ, SAM, TRA – TR-E: KRK **Remarks:** The subspecies is rather widely distributed in Turkey. It has been recorded from 6 Turkish regions. But it has not been recorded only from Aegean Region until now. **Chorotype:** Centralasiatic-European

Subgenus *Euchrysolina* Bechyné, 1950***C. graminis* (Linnaeus, 1758)*****C. g. graminis* (Linnaeus, 1758)**

Range: E: AU BH BU BY CZ DE FI FR GB GE GR HU IT LA MC NL NR NT PL RO SK SL SV SZ UK YU **A:** TR **Records in Turkey:** TR-A: DEN, IZM, MUS **Remarks:** The subspecies has been recorded only from 2 Turkish regions as Aegean Region and Eastern Anatolian Region until now. **Chorotype:** European

Subgenus *Fastuolina* Warchałowski, 1991***C. fastuosa* (Scopoli, 1763)*****C. f. fastuosa* (Scopoli, 1763)**

Range: E: AL AU BE BH BU BY CR CT CZ DE FI FR GB GE GG GR HU IT LA LS MC NL NR NT PL PT RO SK SL SP ST SV SZ TR UK YU "Caucasus" **A:** AF ES KZ TR WS **Records in Turkey:** TR-A: TRA **Remarks:** The subspecies has been recorded only from Black Sea Region in Turkey until now. **Chorotype:** Sibero-European

***C. f. inexplicabilis* Bransik, 1910**

Range: E: BU RO YU **A:** TR **Records in Turkey:** TR-A **Remarks:** Provincial distribution of the subspecies is unknown. However, it should be distributed very likely in western half of Turkey. **Chorotype:** Turano-Mediterranean (Balkano-Anatolian)

Subgenus *Hypericia* Bedel, 1892***C. anatolica* (Dahlgren, 1984)**

Range: E: BU **A:** TR **Records in Turkey:** TR-A: AMA **Remarks:** The species has been recorded only from Black Sea Region in Turkey until now. **Chorotype:** Turano-Mediterranean (Balkano-Anatolian)

C. cuprina* (Duftschmid, 1825)**C. c. cuprina* (Duftschmid, 1825)**

Range: E: AU BU BY CR CZ FR GG HU IT PL RO SK SL UK YU **A:** TR **Records in Turkey:** TR-A: EZU **Remarks:** The subspecies has been recorded only from Eastern Anatolian Region in Turkey until now. **Chorotype:** C and E-European

***C. c. staneki* Bechyné, 1949**

Range: A: TR **Records in Turkey:** TR-A **Remarks:** Provincial distribution of the subspecies is unknown. **Chorotype:** Anatolian

C. didymata* (Scriba, 1791)**C. d. didymata* (Scriba, 1791)**

Range: E: AR BH BU FR GR HU IT MC YU **A:** CY IN KZ TM TR **Records in Turkey:** TR-A: AFY, AMA, ANK, ANT, BIL, DEN, ISP, IZM, KON, MAR, SIV **Remarks:** The subspecies is probably rather widely distributed in Turkey. It has been recorded from 6 Turkish regions. But it has not been recorded only from Eastern Anatolian Region until now. **Chorotype:** Turano-Mediterranean (Turano-Balkan)

***C. d. syriaca* (Weise, 1884)**

Range: A: IS LE SY **Records in Turkey:** TR-A: ADA, MER, OSM **Remarks:** The subspecies is probably distributed only in S Turkey. It probably has been recorded only from Mediterranean Region in Turkey until now. **Chorotype:** E-Mediterranean (Palaestino-Taurian)

***C. geminata* (Paykull, 1799)**

Range: E: AL AU BH BU BY CR CZ DE FR GE GG GR IT LA MC NL NR NT PL RO SK SL SP SV SZ UK YU "Caucasus" **A:** TR **Records in Turkey:** TR-A: EZU, TRA **Remarks:** The species has been recorded only from 2 Turkish regions as Black Sea Region and Eastern Anatolian Region until now. **Chorotype:** C and E-European

C. hyperici* (Forster, 1771)**C. h. hyperici* (Forster, 1771)**

Range: E: AL AU BH BU BY CR CT CZ DE FI FR GB GE GR HU IT LA MC NL NR NT PL PT RO SK SP ST SV SZ TR UK YU **A:** CY KZ TR UZ WS **AUR Records in Turkey:** TR-A: AMA, ANK, ANT, BRS, DEN, EZU, ISP, IST, IZM, KAS, MER, SAM, SIN – TR-E: IST **Remarks:** The subspecies is rather widely distributed in Turkey. It has been recorded from 6 Turkish regions. But it has not been recorded only from South-Eastern Anatolian Region until now. **Chorotype:** Sibero-European + Australian

Subgenus *Lopatinica* Kippenberg, 2012***C. adzharica* Lopatin, 1988*****C. a. heinzi* Kippenberg, 2012**

Range: A: TR **Records in Turkey:** TR-A: ART **Remarks:** The endemic subspecies has been recorded only from Black Sea Region in Turkey until now. **Chorotype:** Anatolian

***C. a. excavata* Kippenberg, 2012**

Range: A: TR **Records in Turkey:** TR-A: ART **Remarks:** The endemic subspecies has been recorded only from Black Sea Region in Turkey until now. **Chorotype:** Anatolian

***C. boluensis* Kippenberg, 2012**

Range: A: TR **Records in Turkey:** TR-A: BOL **Remarks:** The endemic species has been recorded only from Black Sea Region in Turkey until now. **Chorotype:** Anatolian

***C. daccordiana* Kippenberg, 2012**

Range: A: TR **Records in Turkey:** TR-A: TRA **Remarks:** The endemic species has been recorded only from Black Sea Region in Turkey until now. **Chorotype:** Anatolian

***C. differens* Franz, 1952**

Range: E: GG "Caucasus" **A: TR Records in Turkey:** TR-A: ART **Remarks:** The species has been recorded only from Black Sea Region in Turkey until now. **Chorotype:** SW-Asiatic (Anatolo-Caucasian)

***C. kataevi* Lopatin, 2000**

Range: A: TR **Records in Turkey:** TR-A: ART, RIZ, TRA **Remarks:** The endemic species has been recorded only from Black Sea Region in Turkey until now. **Chorotype:** Anatolian

Subgenus *Ovosoma* Motschulsky, 1860***C. orientalis* (Olivier, 1807)*****C. o. orientalis* (Olivier, 1807)**

Range: E: TR **A: TR Records in Turkey:** TR-A: ADA, AFY, AMA, ANK, AYD, BIL, BOL, BRS, DIY, ELA, ESK, EZU, HAT, ISP, IST, IZM, KAH, KAS, KAY, KON, KRB, KSH, KUT, MER, NEV, NIG, ORD, OSM, SAM, SII, SIN, SIV, TOK, VAN, YOZ, ZON – TR-E: IST **Remarks:** Provincial distribution of the subspecies is unknown. Because the species is represented by 4 subspecies in Turkey as the nominate subspecies and the others. It was not possible to give infraspecific distributions separately. However, the nominate subspecies should be distributed very likely in N, W and C Turkey. *C. o. halysa* Bechyné, 1950 should be distributed very likely in Central Parts of Turkey from S to N. *C. o. sahlbergi* (Ménétriés, 1832) should be distributed very likely in C, SE and E Turkey mostly. *C. o. thraeissa* Bechyné, 1950 should be distributed very likely only in SW to SC Turkey. **Chorotype:** Anatolian

***C. o. halysa* Bechyné, 1950**

Range: A: CY IS LE SY **TR Records in Turkey:** TR-A (see above) **Remarks:** Provincial distribution of the subspecies is unknown (see above). **Chorotype:** E-Mediterranean (Palaestino-Cyprioto-Taurian)

***C. o. sahlbergi* (Ménétriés, 1832)**

Range: A: CY IN IQ **TR Records in Turkey:** TR-A (see above) **Remarks:** Provincial distribution of the subspecies is unknown (see above). **Chorotype:** SW-Asiatic (Irano-Anatolian + Irano-Palaestinian)

***C. o. thraeissa* Bechyné, 1950**

Range: E: GR **Records in Turkey:** TR-A (see above) **Remarks:** Provincial distribution of the subspecies is unknown (see above). **Chorotype:** E-Mediterranean (Aegean)

***C. turca* (Fairmaire, 1865)**

Range: E: BU TR **A:** TR **Records in Turkey:** TR-A: BRS, IST – TR-E: IST **Remarks:** The species has been recorded only from Marmara Region in Turkey until now. **Chorotype:** Turano-Mediterranean (Balkano-Anatolian)

C. vernalis* (Brullé, 1832)**C. v. ottomana* (Weise, 1906)**

Range: E: BU GR MC TR **A:** TR **Records in Turkey:** TR-A: AGR, ART, CAN, DEN, ISP, IST, IZM, TOK – TR-E: IST, TEK **Remarks:** The subspecies is probably rather widely distributed in Turkey. It has been recorded from 5 Turkish regions. But it has not been recorded only from Central Anatolian Region and South-Eastern Anatolian Region until now. **Chorotype:** Turano-Mediterranean (Balkano-Anatolian)

***C. wittmeri* Medvedev, 1975**

Range: A: TR **Records in Turkey:** TR-A: GUM, TRA **Remarks:** The species has been recorded only from Black Sea Region in Turkey until now. **Chorotype:** Anatolian

Subgenus *Ovostoma* Motschulsky, 1860***C. olivieri* Bedel, 1892*****C. o. olivieri* Bedel, 1892**

Range: E: AL AU BU CR MD PL RO SK SL TR UK YU **Records in Turkey:** TR-A **Remarks:** Provincial distribution of the subspecies is unknown. **Chorotype:** C and E-European

***C. o. azurea* Bechyné, 1946**

Range: E: GG ST **A:** TR **Records in Turkey:** TR-A **Remarks:** Provincial distribution of the subspecies is unknown. **Chorotype:** SW-Asiatic (Anatolo-Caucasian)

Subgenus *Paradiachalcoidea* Daccordi, 1978***C. palmyrensis* Bechyné, 1955*****C. p. assurensis* Bechyné, 1955**

Range: A: IN IQ TR **Records in Turkey:** TR-A: GAZ **Remarks:** The subspecies has been recorded only from South-Eastern Anatolian Region in Turkey until now. **Chorotype:** SW-Asiatic (Irano-Anatolian)

Subgenus *Sphaeromela* Bedel, 1892***C. varians* (Schaller, 1783)**

Range: E: AU BE BH BU BY CR CT CZ DE FI FR GB GE HU IT LA LS LT MC NL NR NT PL RO SK SL SP ST SV SZ UK YU “Caucasus” **N:** AG **A:** TR WS **Records in Turkey:** TR-A **Remarks:** Provincial distribution of the subspecies is unknown. **Chorotype:** W-Palearctic or Sibero-European + N-Africa

Subgenus *Stichoptera* Motschulsky, 1860***C. gypsophilae* (Küster, 1845)**

Range: E: AL AR AU BH BU BY CR CZ DE FI FR GE GG GR HU IT LA MC NR NT PL RO SK ST SV SZ TR UK YU “Caucasus” **A:** CY IN IS KI KZ SY TR **Records in Turkey:** TR-A: ADA, AFY, AKS, AMA, ANK, ANT, ART, BAR, BIL, BRS, ESK, EZU, IZM, KAR, KON, KSH, MER, NEV, NIG, OSM, SIN, TOK, ZON **Remarks:** The species is rather widely distributed in Turkey. It has been recorded from 6 Turkish regions. But it has not been recorded only from South-Eastern Anatolian Region until now. **Chorotype:** Centralasiatic-European

***C. sanguinolenta* (Linnaeus, 1758)**

Range: E: AR AU BE BH BU BY CT CZ DE FI FR GB GE GR HU IT LA MC NL NR NT PL RO SK SL ST SV SZ TR UK YU **A:** ES FE KI KZ MG TR WS **Records in Turkey:** TR-A: IST – TR-E: IST **Remarks:** The species has been recorded only from Marmara Region in Turkey until now. **Chorotype:** Sibero-European

Subgenus *Sulcicollis* Sahlberg, 1913***C. chalcites* (Germar, 1824)****Range:** E: AR BU CR CT GG GR HU IT RO SK ST TR UK YU **A:** AF CY IN IS SY TD TR WS**Records in Turkey:** TR-A: AMA, ANT, ART, BOL, BRS, DEN, DIY, EZU, GAZ, IST, IZM, KON, MER, OSM, SAK, SAM, SIN – TR-E: IST **Remarks:** The species is widely distributed in Turkey. It has been recorded from all Turkish regions. But it has not been recorded only from Ergene Part and Istranca Part of European Turkey in Marmara Region, Central-West Anatolia Part in Aegean Region, the most Parts of Central Anatolian Region and the most Parts of Eastern Anatolian Region until now. **Chorotype:** Centralasiatic-European***C. impavida* Bechyné, 1949****Range:** E: GR **A:** CY IS SY TR **Records in Turkey:** TR-A **Remarks:** Provincial distribution of the subspecies is unknown. **Chorotype:** E-Mediterranean (Palaestino-Cyprioto-Taurian + Aegean)***C. oricalcia* (Müller, 1776)****Range:** E: AL AU BH BU CR CZ DE FR GB GE GR HU IT LS MC NL NR PL RO SK SL SV SZ TR UK YU **A:** MG TR “Siberia” **Records in Turkey:** TR-A: ANT, KAH – TR-E **Remarks:** The species has been recorded only from 2 Turkish regions as Marmara Region and Mediterranean Region until now. **Chorotype:** Sibero-European***C. peregrina* (Herrich-Schäffer, 1838)****Range:** E: CR FR IT MA PT SP **N:** AG MO TU **Records in Turkey:** TR-A **Remarks:** Provincial distribution of the subspecies is unknown. **Chorotype:** Mediterranean**Subgenus *Synerga* Weise, 1900*****C. coeruleans* (Scriba, 1791)*****C. c. coeruleans* (Scriba, 1791)****Range:** E: AU BH BU BY CR CT CZ FR GE GG HU IT LS MC NL NT PL RO SK SL ST SZ TR YU **A:** TR **Records in Turkey:** TR-A: ANK, ART, ERZ, EZU, KAS, KRS – TR-E **Remarks:** The subspecies probably has been recorded from 4 Turkish regions. But it has not been recorded from Aegean Region, Mediterranean Region and South-Eastern Anatolian Region until now. **Chorotype:** C and E-European***C. c. angelica* (Reiche & Sauley, 1858)****Range:** A: IN IS SY **Records in Turkey:** TR-A: ANT, HAT, IZM, KAH, MER **Remarks:** The subspecies probably has been recorded only from 2 Turkish regions as Aegean Region and Mediterranean Region until now. **Chorotype:** SW-Asiatic (Irano-Anatolian + Irano-Palaestinian)***C. herbacea* (Duftschmid, 1825)*****C. h. herbacea* (Duftschmid, 1825)****Range:** E: AL AU BH BU BY CR CT CZ DE FR GB GE GG GR HU IT LS MC NL NT PL RO SK SL SP ST SZ TR UK YU **A:** KZ TM TR WS **Records in Turkey:** TR-A: AKS, ANK, BAR, BIL, BOL, BRS, BUR, CNK, COR, DEN, DUZ, ERZ, ESK, EZU, IST, IZM, KAS, KAY, KOC, KON, KRB, KSH, MAN, MUS, NEV, NIG, ORD, SAM, SIN, SIV, TOK, TRA, YOZ, ZON – TR-E: EDI, IST, KRK **Remarks:** Provincial distribution of the subspecies is unknown. Because the species is represented by 3 subspecies in Turkey as the nominate subspecies and the others. It was not possible to give infraspecific distributions separately. However, *C. h. reticulata* Motschulsky, 1860 should be distributed very likely only in NE and E Turkey, *C. h. alacris* Bechyné, 1950 should be distributed very likely in S and CS Turkey, and the nominate subspecies should be distributed very likely in the other parts of Turkey. So the subspecies is rather widely distributed in Turkey. It probably has been recorded from 6 Turkish regions. It has not been recorded only from South-Eastern Anatolian Region in Turkey until now. **Chorotype:** Sibero-European

***C. h. alacris* Bechyné, 1950**

Range: A: TR **Records in Turkey:** TR-A: ANT, ISP, KAH, KAR, MER, OSM **Remarks:** The subspecies has been recorded only from 2 Turkish regions as Central Anatolian Region and Mediterranean Region until now. **Chorotype:** Anatolian

***C. h. recticollis* Motschulsky, 1860**

Range: E: AR A: TR **Records in Turkey:** TR-A: ART **Remarks:** The subspecies has been recorded only from Black Sea Region in Turkey until now. **Chorotype:** SW-Asiatic (Anatolo-Caucasian)

Subgenus *Taeniosticha* Motschulsky, 1860***C. pseudolurida* (Roubal, 1817)**

Range: E: BH BU FR GE HU IT PL SK ST UK **Records in Turkey:** TR-A: ADA, ANK, BOL, KON, KRS, TOK **Remarks:** The species has been recorded only from 4 Turkish regions. But it has not been recorded from Aegean Region, Marmara Region and South-Eastern Anatolian Region until now. **Chorotype:** S and E-European

***C. reitteri* (Weise, 1884)**

Range: E: GG **Records in Turkey:** TR-A: ADA, AMA, ANK, ANT, ARD, ART, BAY, BIL, BOL, ESK, EZU, ISP, KON, MER, NIG, YOZ **Remarks:** The species is probably rather widely distributed in Turkey. It has been recorded from 5 Turkish regions. But it has not been recorded only from Aegean Region and South-Eastern Anatolian Region until now. **Chorotype:** SW-Asiatic (Anatolo-Caucasian)

Subgenus *Threnosoma* Motschulsky, 1860***C. anceyi* (Marseul, 1868)*****C. a. anceyi* (Marseul, 1868)**

Range: A: IS LE SY TR **Records in Turkey:** TR-A: HAT **Remarks:** The subspecies has been recorded only from Mediterranean Region in Turkey until now. **Chorotype:** E-Mediterranean (Palaestino-Taurian)

C. limbata* (Fabricius, 1775)**C. l. volodi* Bienkowski & O.-Bienk., 2011**

Range: E: AR A: TR **Records in Turkey:** TR-A: ARD, BIN, BRS, KRS **Remarks:** The subspecies has been recorded only from 2 Turkish regions as Eastern Anatolian Region and Marmara Region until now. **Chorotype:** SW-Asiatic (Anatolo-Caucasian)

Genus *Chrysomela* Linnaeus, 1758***C. collaris* Linnaeus, 1758**

Range: E: AL AU BH BU BY CR CT CZ DE FI FR GE GR HU IT LA MC NL NR NT PL RO SK ST SV SZ UK YU **A:** ES FE KZ MG NE NO TR WS **Records in Turkey:** TR-A: ADA, EZU, KAY **Remarks:** The species has been recorded only from 3 Turkish regions as Central Anatolian Region, Eastern Anatolian Region and Mediterranean Region until now. **Chorotype:** Sibero-European

***C. populi* Linnaeus, 1758**

Range: E: AL AR AU BE BH BU BY CR CZ DE FI FR GB GE GG GR HU IT LA LS MC MD NL NR NT PL RO SK SL SP ST SZ TR UK YU **A:** AF AHN BEI ES FE FUJ GAN GUA GUI GUX HEB HEI HUB HUN IN JA JIA JIL JIX LIA MG NIN NMO NP QIN SC SCH SD SHA SHN SHX TR UP WS XIN XIZ YUN ZHE **Records in Turkey:** TR-A: AKS, AMA, ANK, ANT, AYD, ART, BIL, BIT, BUR, COR, DEN, ERZ, ESK, EZU, ISP, IST, IZM, KAH, KAR, KAS, KAY, KOC, KON, KRB, KRS, MAN, NEV, NIG, ORD, OSM, SAM, SIN, SIV, TOK, TRA, ZON – TR-E: IST **Remarks:** The species is widely distributed in Turkey. It has been recorded from 6 Turkish regions. But it has not been recorded only from South-Eastern Anatolian Region until now. **Chorotype:** Asiatic-European

C. saliceti* (Weise, 1884)**C. saliceti saliceti* (Weise, 1884)**

Range: E: AL AU BH BU BY CR CZ DE FI FR GE GR HU IT LS NL NT PL SK SL SP ST SV SZ UK YU **A:** ES FE IN KZ MG NMO TR WS XIN **Records in Turkey:** TR-A: AKS, ANK, CNK, COR, ERZ, EZU, ISP, KAH, KAY, KON, KSH, NEV, NIG, SIV, YOZ **Remarks:** The subspecies has been recorded only from 4 Turkish regions. But it has not been recorded from Aegean Region, Marmara Region and South-Eastern Anatolian Region until now. **Chorotype:** Sibero-European

C. tremula* Fabricius, 1787**C. t. tremula* Fabricius, 1787**

Range: E: AL AU BE BU BY CR CZ DE FI FR GB GE GR HU IT LA NL NR NT PL RO SK SL ST SV SZ UK YU **A:** AF ANH BEI ES FE GUI HEB HEI IN JA JIL KZ LIA MG NMO QIN PA SCH TR WS XIZ YUN ZHE **NAR Records in Turkey:** TR-A: ANK, BOL, BRS, CAN, CNK, ELA, ESK, GUM, IST, KAS, KOC, KON, KSH, MUG, SIN, TOK, TRA, ZON – TR-E: EDI, IST **Remarks:** The species is probably rather widely distributed in Turkey. It has been recorded from 5 Turkish regions. But it has not been recorded only from Mediterranean Region and South-Eastern Anatolian Region until now. **Chorotype:** Asiatic-European + Nearctic or Holarctic

C. vigintipunctata* (Scopoli, 1763)**C. v. vigintipunctata* (Scopoli, 1763)**

Range: E: AL AU BH BU BY CZ FR GE GR HU IT LA LS MC NL NT PL RO SK SL ST SV SZ TR UK YU **A:** ANH ES FE FUJ GUI HUB HUN JA JIL LIA SCH SHA TAI TR WS YUN ZHE **Records in Turkey:** TR-A: AMA, BIL, BRS, CAN, CNK, IST, KOC, TOK, ZON – TR-E: IST **Remarks:** The species has been recorded only from 3 Turkish regions as Black Sea Region, Central Anatolian Region and Marmara Region until now. **Chorotype:** Asiatic-European

Genus *Colaphellus* Weise, 1916***C. apicalis* (Ménétriés, 1832)**

Range: A: AF IN IS KI KZ SY TM TR UZ **Records in Turkey:** TR-A **Remarks:** Provincial distribution of the species is unknown. **Chorotype:** Centralasiatic + SW-Asiatic (Irano-Anatolian + Irano-Palaestianian)

C. sophiae* (Schaller, 1783)**C. s. amasiae* Machatschke, 1954**

Range: A: TR **Records in Turkey:** TR-A: AMA **Remarks:** The endemic subspecies has been recorded only from Black Sea Region in Turkey until now. **Chorotype:** Anatolian

***C. s. transsylvanicus* Machatschke, 1954**

Range: E: BU GR MC RO TR YU **A:** TR **Records in Turkey:** TR-A: AFY, AKS, AMA, ANK, AYD, BOL, CAN, DEN, DIY, EZU, ISP, IST, IZM, KAS, KAY, KON, KRB, MAN, NEV, NIG, TOK, YOZ – TR-E: EDI **Remarks:** The subspecies is rather widely distributed in Turkey. It has been recorded from 6 Turkish regions. But it has not been recorded only from Mediterranean Region until now. **Chorotype:** Turano-Mediterranean (Balkano-Anatolian)

Genus *Cyrtonastes* Fairmaire, 1874**Subgenus *Cyrtonastes* Fairmaire, 1874*****C. confusus* Berti & Daccordi, 1974**

Range: A: SY TR **Records in Turkey:** TR-A: HAT **Remarks:** The species has been recorded only from Mediterranean Region in Turkey until now. **Chorotype:** SW-Asiatic (Syro-Anatolian)

***C. grandis* Lopatin, 1994**

Range: A: TR **Records in Turkey:** TR-A: MER **Remarks:** The endemic species has been recorded only from Mediterranean Region in Turkey until now. **Chorotype:** Anatolian

Subgenus *Natocyrstes* Kippenberg, 2010***N. seriatoporus* Fairmaire, 1880**

Range: E: GR **Records in Turkey:** TR-A: ISP **Remarks:** The species has been recorded only from Mediterranean Region in Turkey until now. **Chorotype:** E-Mediterranean (Aegean)

Genus *Entomoscelis* Chevrolat, 1837***E. adonidis* (Pallas, 1771)**

Range: E: AU BU CT CZ FR GE GR HU LA MC NT PL RO SK SP ST TR UK YU “Caucasus”
A: ES IN KZ MG PA SY TR WS XIN **NAR Records in Turkey:** TR-A: AFY, AKS, AMA, ANK, ANT, ARD, DEN, DIY, DUZ, ESK, EZU, GAZ, HAT, ISP, IZM, KAH, KAS, KAY, KIR, KON, KRB, KSH, NEV, NIG, SIV, TOK, YOZ, ZON – TR-E **Remarks:** The species is widely distributed in Turkey. It has been recorded from all Turkish regions. But it has not been recorded only from the most Parts of Marmara Region, Eastern Black Sea Part in Black Sea Region, and the most Parts of Eastern Anatolian Region until now. **Chorotype:** Sibero-European + Nearctic

***E. sacra* (Linnaeus, 1758)**

Range: E: AU BU GG HU RO SK ST UK **A:** KZ SY TR “Palestina” **Records in Turkey:** TR-A: AKS, ANK, ESK, GAZ, ISP, IZM, KAR, KON, NEV, NIG, URF **Remarks:** The species has been recorded only from 4 Turkish regions. But it has not been recorded from Black Sea Region, Eastern Anatolian Region and Marmara Region until now. **Chorotype:** C and E-European

***E. suturalis* Weise, 1882**

Range: E: GR MC MD RO UK **A:** IN **Records in Turkey:** TR-A: ADA, AKS, AMA, ANK, ANT, BIT, BOL, COR, EZU, ISP, KAH, KAR, KAS, KAY, KON, KSH, MER, NEV, NIG, TOK, VAN, YOZ, ZON **Remarks:** The species has been recorded only from 4 Turkish regions. But it has not been recorded from Aegean Region, Marmara Region and South-Eastern Anatolian Region until now. **Chorotype:** Turano-Mediterranean (Turano-Balkan)

Genus *Gastrophysa* Chevrolat, 1836**Subgenus *Gastrophysa* Chevrolat, 1836*****G. polygona* (Linnaeus, 1758)*****G. p. polygona* (Linnaeus, 1758)**

Range: E: AU BE BH BU BY CR CZ DE FI FR GB GE GR HU IT LA LS MC NL NR NT PL RO SK SL SP ST SV SZ TR UK YU “Caucasus” **A:** TR WS **NAR Records in Turkey:** TR-A: ADA, AKS, AMA, ANK, ARD, ART, BOL, CNK, DEN, DIY, DUZ, ERZ, ESK, EZU, ISP, IST, IZM, KAH, KAR, KAS, KAY, KON, KRB, KRS, MER, NEV, NIG, ORD, SAM, SIN, TRA, TOK, YOZ – TR-E: EDI, IST **Remarks:** The species is widely distributed in Turkey. It has been recorded from all Turkish regions. But it has not been recorded only from the most Parts of Marmara Region, Central-West Anatolia Part in Aegean Region, Upper Murat-Van Part and Hakkari Part in Eastern Anatolian Region and Central Fırat Part in South-Eastern Anatolian Region until now. **Chorotype:** Sibero-European + Nearctic

G. viridula* (DeGeer, 1775)**G. v. viridula* (DeGeer, 1775)**

Range: E: AU BE BH BU BY CZ DE FI FR GB GE HU IT LA LS NL NR NT PL RO SK ST SV SZ UK YU “Caucasus” **A:** KZ TR **NAR Records in Turkey:** TR-A: EZU, TRA **Remarks:** The subspecies has been recorded only from 2 Turkish regions as Black Sea Region and Eastern Anatolian Region until now. **Chorotype:** European + Nearctic

***G. v. caucasica* Jolivet, 1951**

Range: E: “Caucasus” **Records in Turkey:** TR-A: ART **Remarks:** The subspecies has been recorded only from Black Sea Region in Turkey until now. **Chorotype:** SW-Asiatic (Anatolo-Caucasian)

Genus *Gonioctena* Chevrolat, 1836**Subgenus *Gonioctena* Chevrolat, 1836*****G. decemnotata* Marsham, 1802**

Range: E: AU BH BU BY CR CT CZ DE FI FR GB GE HU IT LA NL NR NT PL RO RU SK SL ST SV SZ TR UK **A:** ES FE KZ MG NE NO TR WS **Records in Turkey:** TR-A: BAL, IST, KRS – TR-E: IST **Remarks:** The species has been recorded only from 2 Turkish regions as Eastern Anatolian Region and Marmara Region until now. **Chorotype:** Sibero-European

G. linnaeana* (Schrank, 1781)**G. l. linnaeana* (Schrank, 1781)**

Range: E: AU BE BH BU BY CR CZ FI FR GE GG GR HU IT LA LS NL NR NT PL RO RU SK SL SP ST SV SZ TR UK YU **A:** ES KZ MG NE TR **Records in Turkey:** TR-A: BIN, EZU, GUM, TUN **Remarks:** The subspecies has been recorded only from 2 Turkish regions as Black Sea Region and Eastern Anatolian Region until now. **Chorotype:** Sibero-European

G. viminalis* (Linnaeus, 1758)**G. v. viminalis* (Linnaeus, 1758)**

Range: E: AN AU BE BH BU BY CR CZ DE EN FI FR GB GE HU IR IT LA LS NL NR NT PL RO RU SK SL ST SV SZ TR UK YU "Caucasus" **A:** ES KZ MG NE "Korea" **Records in Turkey:** TR-E **Remarks:** Provincial distribution of the subspecies is unknown. **Chorotype:** Sibero-European

Subgenus *Spartomena* Reitter, 1913***G. akbesiana* Fairmaire, 1884**

Range: A: IS SY **Records in Turkey:** TR-A: HAT **Remarks:** The species has been known only from Mediterranean Region in Turkey until now. **Chorotype:** E-Mediterranean (Palaestino-Taurian)

***G. fornicata* (Brüggemann, 1873)**

Range: E: AL BH BU BY CR CZ DE FR GB GE HU IT MC NL PL PT RO SK SP ST SZ UK **N:** MO **Records in Turkey:** TR-A: ADA, AFY, AKS, ANK, ANT, ART, BOL, BIL, CNK, COR, DEN, DIY, DUZ, ERZ, ESK, EZU, GAZ, HAT, ISP, IZM, KAH, KAR, KAS, KAY, KON, KRB, MAR, MER, MUS, NEV, NIG, OSM, SIN, TOK, TUN, YOZ, ZON – TR-E **Remarks:** The species is widely distributed in Turkey. It has been recorded from all Turkish regions. But it has not been recorded only from the most Parts of Marmara Region and Hakkari Part in Eastern Anatolian Region until now. **Chorotype:** Mediterranean

Genus *Leptinotarsa* Chevrolat, 1836***L. decemlineata* (Say, 1824)**

Range: E: AL AU BE BH BU BY CR CZ DE FI FR GE GR HU IT LA LS MC NT PL PT RO SK SP SZ UK YU "Caucasus" **A:** IS SY TR **NAR Records in Turkey:** TR-A: ADA, AFY, AKS, ANK, ART, BOL, CAN, DUZ, ERZ, ESK, EZU, KAH, KAR, KAS, KAY, NEV, NIG, OSM, SIN, TOK, ZON – TR-E: EDI, TEK **Remarks:** The species is rather widely distributed in Turkey. It has been recorded from 6 Turkish regions. But it has not been recorded only from South-Eastern Anatolian Region until now. **Chorotype:** C and E-European + Nearctic

Genus *Neophaedon* Jakobson, 1901***N. pyritosus* (Rossi, 1792)**

Range: E: AU BH BU BY CR CZ FR GE GR HU IT NL PL RO SK SL SP ST SZ TR UK YU "Caucasus" **A:** AF KZ TM TR UZ **Records in Turkey:** TR-A: AKS, AMA, ANK, ANT, DUZ, ESK, EZU, ISP, IST, IZM, KAS, KON, KRB, KSH, MAN, MAR, ORD, SAM, SIV, TOK, TRA, URF, YOZ – TR-E: IST **Remarks:** The species is widely distributed in Turkey. It has been recorded from all Turkish regions. But it has not been recorded only from the most Parts of Marmara Region, Central-West Anatolia Part in Aegean Region, Adana Part in Mediterranean Region, Eastern Black Sea Part in Black Sea Region and the most Parts of Eastern Anatolian Region until now. **Chorotype:** Centralasiatic-European

Genus *Phaedon* Latreille, 1829**Subgenus *Phaedon* Latreille, 1829*****P. armoraciae* (Linnaeus, 1758)**

Range: E: AU BH BU BY CR CZ DE FI FR GB GE GR HU IT LA NL NR NT PL RO SK SL SP SV SZ UK YU "Caucasus" **A:** HEB KZ MG TR **Records in Turkey:** TR-A: BOL, EZU, RIZ, NEV, ORD, TOK **Remarks:** The species has been recorded only from 3 Turkish regions as Black Sea Region, Central Anatolian Region and Eastern Anatolian Region until now. **Chorotype:** Asiatic-European

P. cochleariae* (Fabricius, 1792)**P. c. cochleariae* (Fabricius, 1792)**

Range: E: AU BH BU BY CR CZ DE FI FR GB GE GR HU IT LA LS MC NL NR NT PL RO SK SL SP ST SV SZ TR UK YU "Caucasus" **A:** FE KZ MG TR **Records in Turkey:** TR-A: ANK, ANT, DIY, EZU, GAZ, KAY, KON, KSH, NIG, TOK, TRA – TR-E: KRK **Remarks:** The subspecies is probably rather widely distributed in Turkey. It has been recorded from 6 Turkish regions. But it has not been recorded only from South-Eastern Anatolian Region until now. **Chorotype:** Sibero-European

Genus *Phratora* Chevrolat, 1836**Subgenus *Phratora* Chevrolat, 1836*****P. vulgatissima* (Linnaeus, 1758)**

Range: E: AU BH BU BY CR CZ DE FI FR GB GE GG GR HU IT LA LS NL NR NT PL RO SK SL SV SZ UK **A:** FE HEI KZ MG NMO TR XIN **NAR Records in Turkey:** TR-A: AKS, ANK, BAR, DUZ, KAS – TR-E **Remarks:** The species has been recorded only from 3 Turkish regions as Black Sea Region, Central Anatolian and Marmara Region until now. **Chorotype:** Sibero-European + Nearctic

Subgenus *Phyllodecta* Kirby, 1837***P. horioni* (Mohr, 1968)**

Range: E: "Caucasus" **A:** TR **Records in Turkey:** TR-A: ANT **Remarks:** The species has been recorded only from Mediterranean Region in Turkey until now. **Chorotype:** SW-Asiatic (Anatolo-Caucasian)

***P. laticollis* (Suffrian, 1851)**

Range: E: AU BE BH BU BY CR CZ DE FR GB GE GR HU IT LA NL NT PL RO SK SP SZ UK YU "Caucasus" **A:** ES FE HUB JA JIL KZ LE MG NC SCH TR WS YUN **Records in Turkey:** TR-A: ANK, CNK **Remarks:** The species has been recorded only from Central Anatolian Region in Turkey until now. **Chorotype:** Asiatic-European

P. tibialis* (Suffrian, 1851)**P. t. tibialis* (Suffrian, 1851)**

Range: E: AL AU BE BH BU BY CR CZ DE FR GE HU IT LA LS NL PL RO SL SP SZ UK YU **A:** KZ TR **Records in Turkey:** TR-A: ANK, EZU, TOK **Remarks:** The subspecies has been recorded only from 3 Turkish regions as Black Sea Region, Central Anatolian Region and Eastern Anatolian Region until now. **Chorotype:** C and E-European

***P. vitellinae* (Linnaeus, 1758)**

Range: E: AL AU BE BH BU BY CR CT CZ DE FI FR GB GE HU IC IT LA LS NL NR NT PL RO SK SL SP ST SV SZ UK **A:** ES FE HEI JIL LIA MG NMO QIN TR WS XIN **NAR Records in Turkey:** TR-A: AMA, ANK, ART, BIL, BOL, BRS, CNK, COR, DIY, EZU, GIR, IST, KAS, KOC, MAR, MUS, SAK, SAM, SIN, SIV, TOK, TRA, ZON – TR-E: EDI, IST **Remarks:** The species is probably rather widely distributed in Turkey. It has been recorded from 5 Turkish regions. But it has not been recorded only from Aegean Region and Mediterranean Region until now. **Chorotype:** Asiatic-European + Nearctic

Genus *Plagiodera* Chevrolat, 1836***P. versicolora* (Laicharting, 1781)**

Range: E: AL AU BE BH BU CR CZ DE FI FR GB GE GG GR HU IT LA MC NL NR NT PL RO SK SL SP SV SZ TR UK YU N: MO A: ANH BEI ES FE FUJ GAN GUI HEB HEI HEN HKG HUB HUN JA JIA JIL JIX LIA MG NC NIN NMO SC SCH SHA SHN TAI TIA TR WS XIN YUN ZHE **ORR Records in Turkey:** TR-A: AKS, AMA, ANK, ANT, ART, BOL, BRS, BUR, DIY, ERZ, EZU, ISP, IST, IZM, KAH, KAS, KAY, KOC, KON, MAR, MER, SAM, SAK, TOK, TRA, YAL, ZON – TR-E: EDI, IST, KRK **Remarks:** The species is widely distributed in Turkey. It has been recorded from all Turkish regions. But it has not been recorded only from Central-West Anatolia Part in Aegean Region, Upper Murat-Van Part and Hakkari Part in Eastern Anatolian Region and Central Fırat Part in South-Eastern Anatolian Region until now. **Chorotype:** Palearctic + Oriental

Genus *Plagiosterna* Motschulsky, 1860***P. aenea* (Linnaeus, 1758)*****P. a. aenea* (Linnaeus, 1758)**

Range: E: AL AU BH BU BY CR CZ FR GB GE HU IT LA MC PL RO SK SL SP UK YU A: ES FE HEI JA JIL LIA TAI TR WS **Records in Turkey:** TR-A: BAL, BAR, CAN, IST, KIR – TR-E: IST **Remarks:** The subspecies has been recorded only from 3 Turkish regions as Black Sea Region, Central Anatolian Region and Marmara Region until now. **Chorotype:** Asiatic-European

Genus *Prasocuris* Latreille, 1802**Subgenus *Hydrothassa* Thomson, 1859*****P. flavocincta* (Brullé, 1832)**

Range: E: AL BH BU CR GR HU TR YU A: TR **Records in Turkey:** TR-A: IST – TR-E: IST **Remarks:** The species has been recorded only from Marmara Region in Turkey until now. **Chorotype:** Turano-Mediterranean (Balkano-Anatolian) or SE-European

***P. glabra* (Herbst, 1783)**

Range: E: AU BE BH BU BY CR CZ DE FI FR GB GE GG GR HU IT LA LS NL NR NT PL PT RO SK SL SP ST SV SZ UK N: MO A: TR **Records in Turkey:** TR-A: EZU **Remarks:** The species has been recorded only from Eastern Anatolian Region in Turkey until now. **Chorotype:** Europeo-Mediterranean

Subgenus *Prasocuris* Latreille, 1802***P. junci* (Brahm, 1790)**

Range: E: AU BH BU BY CR CZ DE FI FR GB GE GG GR HU IT LA NL NR NT PL RO SK SL SP ST SV SZ UK YU "Caucasus" A: TR **Records in Turkey:** TR-A: AFY, ANK, DEN, DIY, ESK, EZU, GAZ, GUM, ISP, KAY, KSH, KON, MUG, NEV, NIG, OSM, SAM, SIV, TOK, VAN, YOZ **Remarks:** The species is rather widely distributed in Turkey. It has been recorded from 6 Turkish regions. But it has not been recorded only from Marmara Region until now. **Chorotype:** European

***P. phellandri* (Linnaeus, 1758)**

Range: E: AU BH BU BY CZ DE FI FR GB GE GR HU IT LA NL NR NT PL RO SK SL SP ST SV SZ TR UK YU "Caucasus" N: MO A: ES JA TR WS **NAR Records in Turkey:** TR-A: IST, SAM – TR-E: IST, KRK **Remarks:** The species has been recorded only from 2 Turkish regions as Black Sea Region and Marmara Region until now. **Chorotype:** Holarctic

Genus *Zygogramma* Chevrolat in Dej., 1836***Z. suturalis* (Fabricius, 1775)**

Range: E: GG ST UK A: ES TR **NAR Records in Turkey:** TR-A: ADI **Remarks:** The species has been recorded only from South-Eastern Anatolian Region until now. **Chorotype:** Sibero-European + Nearctic

Subfamily TIMARCHINAE**Genus *Timarcha* Latreille, 1829****Subgenus *Metalotimarcha* Motschulsky, 1860*****T. hummelii* Faldermann, 1837*****T. h. hummelii* Faldermann, 1837**

Range: E: AB AR TR A: IN TR **Records in Turkey:** TR-A: ART **Remarks:** The subspecies has been recorded only from Black Sea Region in Turkey until now. **Chorotype:** SW-Asiatic (Anatolo-Caucasian + Irano-Caucasian + Irano-Anatolian)

Subgenus *Timarcha* Latreille, 1829***T. olivieri* (Fairmaire, 1868)*****T. o. olivieri* (Fairmaire, 1868)**

Range: E: CR SL TR **Records in Turkey:** TR-A: ESK, KON, MAN, IST – TR-E: IST **Remarks:** The subspecies has been recorded only from 3 Turkish regions as Aegean Region, Central Anatolian Region and Marmara Region until now. **Chorotype:** Turano-Mediterranean (Balkano-Anatolian) or SE-European

***T. pratensis* Duftschmid, 1825**

Range: E: AU BH BU CR HU IT ME RO SL **Records in Turkey:** TR-A: AMA, ESK, KON, IST – TR-E: IST **Remarks:** The species has been recorded only from 3 Turkish regions as Black Sea Region, Central Anatolian Region and Marmara Region until now. **Chorotype:** C and E-European

T. rugulosa* Herrich-Schäffer, 1838**T. r. rugulosa* Herrich-Schäffer, 1838**

Range: E: CR CZ HU MD RO SB SK TR UK **Records in Turkey:** TR-A **Remarks:** Provincial distribution of the subspecies is unknown. **Chorotype:** E-European

***T. tenebricosa* (Fabricius, 1775)**

Range: E: AB AL AU BE BH BU CR CZ DE FR GB GE GG GR HU IR IT MC ME PL RO SB SK SL SP ST SZ TR UK A: TR **Records in Turkey:** TR-A: ANT, ISP, TRA **Remarks:** The species has been recorded only from 2 Turkish regions as Black Sea Region and Mediterranean Region until now. **Chorotype:** European

ZOOGEOGRAPHICAL ANALYSIS

Turkish Chrysomelinae includes 102 species group taxa (50 species + 52 subspecies) of 15 genera. 15 species, namely 14.71 % of the species group taxa have “Anatolian” chorotype. 14 species, namely 13.73 % of the species group taxa have “SW-Asiatic” chorotype. 12 species, namely 11.77 % of the species group taxa have “Sibero-European” chorotype. 10 species, namely 9.80 % of the species group taxa have “Turano-Mediterranean” chorotype. 9 species, namely 8.82 % of the species group taxa have “E-Mediterranean” chorotype. 7 species, namely 6.86 % of the species group taxa have “C and E-European” chorotype. 6 species, namely 5.88 % of the species group taxa have “Asiatic-European” chorotype. 4 species, namely 3.92 % of the species group taxa have “Centralasiatic-European” chorotype. 4 species, namely 3.92 % of the species group taxa have “European” chorotype. 4 species, namely 3.92 % of the species group taxa have “Sibero-European + Nearctic” chorotype. 2 species, namely 1.96 % of the species group taxa have “Centralasiatic + SW-Asiatic” chorotype. And each of the remaining 11 species group taxa has a different chorotype. One species group taxa, namely about 0.98 % of the taxa has “Asiatic-European + Nearctic” chorotype. One species group taxa, namely about 0.98 % of the taxa has “C and E-European + Nearctic”

chorotype. One species group taxa, namely about 0.98 % of the taxa has "Europeo-Mediterranean" chorotype. One species group taxa, namely about 0.98 % of the taxa has "European + Nearctic" chorotype. One species group taxa, namely about 0.98 % of the taxa has "Holarctic" chorotype. One species group taxa, namely about 0.98 % of the taxa has "Mediterranean + C and E-European" chorotype. One species group taxa, namely about 0.98 % of the taxa has "Palearctic + Oriental" chorotype. One species group taxa, namely about 0.98 % of the taxa has "S and E-European" chorotype. One species group taxa, namely about 0.98 % of the taxa has "Sibero-European + Australian" chorotype. One species group taxa, namely about 0.98 % of the taxa has "W-Palearctic or Sibero-European + N-Africa" chorotype. One species group taxa, namely about 0.98 % of the taxa has "W-Palearctic + Nearctic or Holarctic" chorotype (Fig. 1A). So the dominant chorotype for Turkish Chrysomelinae is "Anatolian". "SW-Asiatic" and "Sibero-European" chorotypes follow it. Also the members of "Turano-Mediterranean", "E-Mediterranean" and also "C and E-European" chorotypes present important contributions for Turkish fauna.

For zoogeographical evaluation, the all known species group taxa of Turkish Chrysomelinae are presented as follows:

A total of 15 species have "Anatolian" chorotype as *C. sellata*, *C. h. byzantia*, *C. abchasica*, *C. planicollis*, *C. c. staneki*, *C. a. heinzi*, *C. a. excavata*, *C. boluensis*, *C. daccordiana*, *C. kataevi*, *C. o. orientalis*, *C. wittmeri*, *C. h. alacris*, *C. s. amasiae* and *C. grandis*.

A total of 14 species have "SW-Asiatic" chorotype as *C. m. unificans*, *C. songarica*, *C. t. tesari*, *C. differens*, *C. o. sahlbergi*, *C. o. azurea*, *C. p. assurensis*, *C. c. angelica*, *C. h. recticollis*, *C. reitteri*, *C. l. volodi*, *C. confusus*, *G. v. caucasica* and *P. horioni*.

A total of 12 species have "Sibero-European" chorotype as *C. c. cyaneoaurata*, *C. sturmi*, *C. f. fastuosa*, *C. sanguinolenta*, *C. oricalcia*, *C. h. herbacea*, *C. collaris*, *C. s. saliceti*, *G. decemnotata*, *G. l. linnaeana*, *G. v. viminalis* and *P. c. cochleariae*.

A total of 10 species have "Turano-Mediterranean" chorotype as *C. g. grata*, *C. s. salviae*, *C. f. inexplicabilis*, *C. anatolica*, *C. d. didymata*, *C. turca*, *C. v. ottomana*, *C. s. transsylvanicus*, *E. suturalis* and *P. flavocincta*.

A total of 9 species have "E-Mediterranean" chorotype as *C. s. compuncta*, *C. b. blanchei*, *C. d. syriaca*, *C. o. halyssa*, *C. o. thraeissa*, *C. impavida*, *C. a. anceyi*, *N. seriatoporus* and *G. akbesiana*.

A total of 7 species have "C and E-European" chorotype as *C. m. marginata*, *C. c. cuprina*, *C. geminata*, *C. o. olivieri*, *C. c. coerulans*, *E. sacra* and *P. t. tibialis*.

A total of 6 species have "Asiatic-European" chorotype as *C. populi*, *C. t. tremula*, *C. v. vigintipunctata*, *P. armoraciae*, *P. laticollis* and *P. a. aenea*.

A total of 4 species have "Centralasiatic-European" chorotype as *C. p. polita*, *C. gypsophilae*, *C. chalcites* and *N. pyritosus*.

A total of 4 species have "European" chorotype as *C. c. cerealis*, *C. h. haemoptera*, *C. g. graminis* and *P. junci*.

A total of 4 species have "Mediterranean" chorotype as *C. aeneipennis*, *C. americana*, *C. peregrina* and *G. fornicata*.

A total of 4 species have "Sibero-European + Nearctic" chorotype as *E. adonidis*, *G. p. polygona*, *P. vulgatissima* and *Z. suturalis*.

A total of 2 species have "Centralasiatic + SW-Asiatic" chorotype as *C. s. sacarum* and *C. apicalis*.

One species as *P. vitellinae* has "Asiatic-European + Nearctic" chorotype.

One species as *L. decemlineata* has "C and E-European + Nearctic" chorotype.

One species as *P. glabra* has “Europeo-Mediterranean” chorotype.

One species as *G. v. viridula* has “European + Nearctic” chorotype.

One species as *P. phellandri* has “Holarctic” chorotype.

One species as *C. analis* has “Mediterranean + C and E-European” chorotype.

One species as *P. versicolora* has “Palearctic + Oriental” chorotype.

One species as *C. pseudolurida* has “S and E-European” chorotype.

One species as *C. h. hyperici* has “Sibero-European + Australian” chorotype.

One species as *C. varians* has “W-Palearctic or Sibero-European + N-Africa” chorotype.

One species as *C. s. staphylaea* has “W-Palearctic + Nearctic or Holarctic” chorotype.

On the other side, Turkish Chrysomelinae includes a total of 102 species group taxa. However, provincial distributions of 17 species group taxa are unknown. So Turkish Chrysomelinae have 2 different evaluations necessarily. But, results of both assessments are the same except the occurrence ratio (Table 1).

For the subfamily Chrysomelinae (according to all species group taxa):

32 species are represented in Marmara Region (31 %)

23 species are represented in Aegean Region (23 %)

39 species are represented in Mediterranean Region (38 %)

39 species are represented in Central Anatolian Region (38 %)

54 species are represented in Black Sea Region (53 %)

40 species are represented in Eastern Anatolian Region (39 %)

17 species are represented in South-Eastern Anatolian Region (17 %)

For the subfamily Chrysomelinae (according to known provincial distribution of 85 species group taxa):

32 species are represented in Marmara Region (38 %)

23 species are represented in Aegean Region (27 %)

39 species are represented in Mediterranean Region (46 %)

39 species are represented in Central Anatolian Region (46 %)

54 species are represented in Black Sea Region (64 %)

40 species are represented in Eastern Anatolian Region (47 %)

17 species are represented in South-Eastern Anatolian Region (20 %)

So Turkish Chrysomelinae that includes a total of 102 species group taxa or 85 species group taxa of which are known provincial distributions in Turkey, are rather widely distributed in all Turkish Regions. The most number of species is represented in Black Sea Region. Eastern Anatolian Region, Mediterranean Region and Central Anatolian Region follow it. Marmara Region is represented with an important number of species. However, Aegean Region and especially South-Eastern Anatolian Region are represented with a rather little number of species now.

Turkish Timarchinae includes 5 species group taxa (2 species + 3 subspecies) of 1 genus. Each of the taxa has a different chorotype. One species group taxa, namely about 20 % of the taxa has “C and E-European” chorotype. One species group taxa, namely about 20 % of the taxa has “E-European” chorotype. One species group taxa, namely about 20 % of the taxa has “European” chorotype. One species group taxa, namely about 20 % of the taxa has “SW-Asiatic” chorotype. And one species group taxa, namely about 20 % of the taxa has

“Turano-Mediterranean” chorotype (Fig. 1B). So all chorotypes for Turkish Timarchinae are represented by the same ratio. As seen above, however, European members that belong to C and E-European, E-European and European chorotypes, havea dominancy for the Turkish Timarchinae fauna.

For zoogeographical evaluation, the all known species group taxa of Turkish Timarchinae are presented as follows:

One species as *T. pratensis* has “C and E-European” chorotype.

One species as *T. r. rugulosa* has “E-European” chorotype.

One species as *T. tenebricosa* has “European” chorotype.

One species as *T. h. hummelii* has “SW-Asiatic” chorotype.

One species as *T. o. olivieri* has “Turano-Mediterranean” chorotype.

On the other side, Turkish Timarchinae includes a total of 5 species group taxa. However, provincial distributions of 1 species group taxa is unknown. So Turkish Timarchinae have 2 different evaluations necessarily. But, results of both assessments are the same except the occurrence ratio (Table 2).

For the subfamily Timarchinae (according to all species group taxa):

2 species are represented in Marmara Region (40 %)

1 species are represented in Aegean Region (20 %)

1 species are represented in Mediterranean Region (20 %)

2 species are represented in Central Anatolian Region (40 %)

3 species are represented in Black Sea Region (60 %)

0 species are represented in Eastern Anatolian Region (0 %)

0 species are represented in South-Eastern Anatolian Region (0 %)

For the subfamily Timarchinae (according to known provincial distribution of 4 species group taxa):

2 species are represented in Marmara Region (50 %)

1 species are represented in Aegean Region (25 %)

1 species are represented in Mediterranean Region (25 %)

2 species are represented in Central Anatolian Region (50 %)

3 species are represented in Black Sea Region (75 %)

0 species are represented in Eastern Anatolian Region (0 %)

0 species are represented in South-Eastern Anatolian Region (0 %)

So Turkish Timarchinae that includes a total of 5 species group taxa or 4 species group taxa of which are known provincial distributions in Turkey, have narrow distribution in Turkey. The most number of species is represented in Black Sea Region. Marmara Region and Central Anatolian Region follow it. Aegean Region and Mediterranean Region are represented only by one species group taxon. However, Eastern Anatolian Region and South-Eastern Anatolian Region have not been included any recorded species group taxa until now.

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Table 1. The regional distribution of all known species group taxa of Chrysomelinae in Turkey.

TAXON	R	E	G	I	O	N	S
	MAR	AER	MER	CAR	BSR	EAR	SEAR
SubfamilyCHRYSOMELINAE							
<i>C. aeneipennis</i>	-	-	-	+	+	-	-
<i>C. g. grata</i>	-	-	-	-	-	-	+
<i>C. s. salviae</i>	-	-	-	-	-	-	+
<i>C. s. compuncta</i>	-	-	+	-	-	-	-
<i>C. analis</i>	-	+	-	+	+	-	-
<i>C. m. marginata</i>	-	-	+	+	+	+	-
<i>C. m. unificans</i>	-	-	+	-	-	+	-
<i>C. sellata</i>	-	-	+	+	+	-	-
<i>C. songarica</i>	+	+	+	+	+	+	+
<i>C. t. tesari</i>	-	-	-	-	-	+	-
<i>C. b. blanchei</i>	-	-	+	-	+	-	-
<i>C. s. staphylaea</i>	-	-	-	+	+	+	-
<i>C. americana</i>	-	+	+	+	-	-	-
<i>C. c. cerealis</i>	-	-	-	-	+	-	-
<i>C. c. cyaneoaurata</i>	?	?	?	?	?	?	?
<i>C. h. haemoptera</i>	?	?	?	?	?	?	?
<i>C. h. byzantia</i>	+	-	-	-	-	-	-
<i>C. abchasica</i>	?	?	?	?	?	?	?
<i>C. planicollis</i>	-	-	-	-	+	-	-
<i>C. sturmi</i>	?	?	?	?	?	?	?
<i>C. s. sacarum</i>	-	-	-	-	-	+	-
<i>C. p. polita</i>	+	-	+	+	+	+	+
<i>C. g. graminis</i>	-	+	-	-	-	+	-
<i>C. f. fastuosa</i>	-	-	-	-	+	-	-
<i>C. f. inexplicabilis</i>	?	?	?	?	?	?	?
<i>C. anatolica</i>	-	-	-	-	+	-	-
<i>C. c. cuprina</i>	-	-	-	-	-	+	-
<i>C. c. staneki</i>	?	?	?	?	?	?	?
<i>C. d. didymata</i>	+	+	+	+	+	-	+
<i>C. d. syriaca</i>	-	-	+	-	-	-	-
<i>C. geminata</i>	-	-	-	-	+	+	-
<i>C. h. hyperici</i>	+	+	+	+	+	+	-
<i>C. a. heinzi</i>	-	-	-	-	+	-	-

<i>C. a. excavata</i>	-	-	-	-	+	-	-
<i>C. boluensis</i>	-	-	-	-	+	-	-
<i>C. daccordiana</i>	-	-	-	-	+	-	-
<i>C. differens</i>	-	-	-	-	+	-	-
<i>C. kataevi</i>	-	-	-	-	+	-	-
<i>C. o. orientalis</i>	?	?	?	?	?	?	?
<i>C. o. halysa</i>	?	?	?	?	?	?	?
<i>C. o. sahlbergi</i>	?	?	?	?	?	?	?
<i>C. o. thraeissa</i>	?	?	?	?	?	?	?
<i>C. turca</i>	+	-	-	-	-	-	-
<i>C. v. ottomana</i>	+	+	+	-	+	+	-
<i>C. wittmeri</i>	-	-	-	-	+	-	-
<i>C. o. olivieri</i>	?	?	?	?	?	?	?
<i>C. o. azurea</i>	?	?	?	?	?	?	?
<i>C. p. assurensis</i>	-	-	-	-	-	-	+
<i>C. varians</i>	?	?	?	?	?	?	?
<i>C. gypsophilae</i>	+	+	+	+	+	+	-
<i>C. sanguinolenta</i>	+	-	-	-	-	-	-
<i>C. chalcites</i>	+	+	+	+	+	+	+
<i>C. impavida</i>	?	?	?	?	?	?	?
<i>C. oricalcia</i>	+	-	+	-	-	-	-
<i>C. peregrina</i>	?	?	?	?	?	?	?
<i>C. c. coerulans</i>	+	-	-	+	+	+	-
<i>C. c. angelica</i>	-	+	+	-	-	-	-
<i>C. h. herbacea</i>	+	+	+	+	+	+	-
<i>C. h. alacris</i>	-	-	+	+	-	-	-
<i>C. h. recticollis</i>	-	-	-	-	+	-	-
<i>C. pseudohurida</i>	-	-	+	+	+	+	-
<i>C. reitteri</i>	+	-	+	+	+	+	-
<i>C. a. anceyi</i>	-	-	+	-	-	-	-
<i>C. l. volodi</i>	+	-	-	-	-	+	-
<i>C. collaris</i>	-	-	+	+	-	+	-
<i>C. populi</i>	+	+	+	+	+	+	-
<i>C. s. saliceti</i>	-	-	+	+	+	+	-
<i>C. t. tremula</i>	+	+	-	+	+	+	-
<i>C. v. vigintipunctata</i>	+	-	-	+	+	-	-
<i>C. apicalis</i>	?	?	?	?	?	?	?
<i>C. s. amasiae</i>	-	-	-	-	+	-	-
<i>C. s. transsylvanicus</i>	+	+	-	+	+	+	+
<i>C. confusus</i>	-	-	+	-	-	-	-
<i>C. grandis</i>	-	-	+	-	-	-	-
<i>N. seriatoporus</i>	-	-	+	-	-	-	-
<i>E. adonidis</i>	+	+	+	+	+	+	+
<i>E. sacra</i>	-	+	+	+	-	-	+
<i>E. suturalis</i>	-	-	+	+	+	+	-
<i>G. p. polygona</i>	+	+	+	+	+	+	+
<i>G. v. viridula</i>	-	-	-	-	+	+	-
<i>G. v. caucasica</i>	-	-	-	-	+	-	-
<i>G. decemnotata</i>	+	-	-	-	-	+	-
<i>G. l. linnaeana</i>	-	-	-	-	+	+	-
<i>G. v. viminalis</i>	?	?	?	?	?	?	?
<i>G. akbesiana</i>	-	-	+	-	-	-	-
<i>G. fornicata</i>	+	+	+	+	+	+	+
<i>L. decemlineata</i>	+	+	+	+	+	+	-
<i>N. pyritosus</i>	+	+	+	+	+	+	+
<i>P. armoraciae</i>	-	-	-	+	+	+	-

<i>P. c. cochleariae</i>	+	+	+	+	+	+	-
<i>P. vulgatissima</i>	+	-	-	+	+	-	-
<i>P. horioni</i>	-	-	+	-	-	-	-
<i>P. laticollis</i>	-	-	-	+	-	-	-
<i>P. t. tibialis</i>	-	-	-	+	+	+	-
<i>P. vitellinae</i>	+	-	-	+	+	+	+
<i>P. versicolora</i>	+	+	+	+	+	+	+
<i>P. a. aenea</i>	+	-	-	+	+	-	-
<i>P. flavocincta</i>	+	-	-	-	-	-	-
<i>P. glabra</i>	-	-	-	-	-	+	-
<i>P. junci</i>	-	+	+	+	+	+	+
<i>P. phellandri</i>	+	-	-	-	+	-	-
<i>Z. suturalis</i>	-	-	-	-	-	-	+

Abbreviations: MAR: Marmara Region, AER: Aegean Region, MER: Mediterranean Region, CAR: Central Anatolian Region, BSR: Black Sea Region, EAR: Eastern Anatolian Region, SEAR: South-Eastern Anatolian Region.

Table 2. The regional distribution of all known species group taxa of Timarchinae in Turkey.

TAXON	R	E	G	I	O	N	S
	MAR	AER	MER	CAR	BSR	EAR	SEAR
SubfamilyTIMARCHINAE							
<i>T. h. hummeli</i>	-	-	-	-	+	-	-
<i>T. o. olivieri</i>	+	+	-	+	-	-	-
<i>T. pratensis</i>	+	-	-	+	+	-	-
<i>T. r. rugulosa</i>	?	?	?	?	?	?	?
<i>T. tenebricosa</i>	-	-	+	-	+	-	-

Abbreviations: MAR: Marmara Region, AER: Aegean Region, MER: Mediterranean Region, CAR: Central Anatolian Region, BSR: Black Sea Region, EAR: Eastern Anatolian Region, SEAR: South-Eastern Anatolian Region.

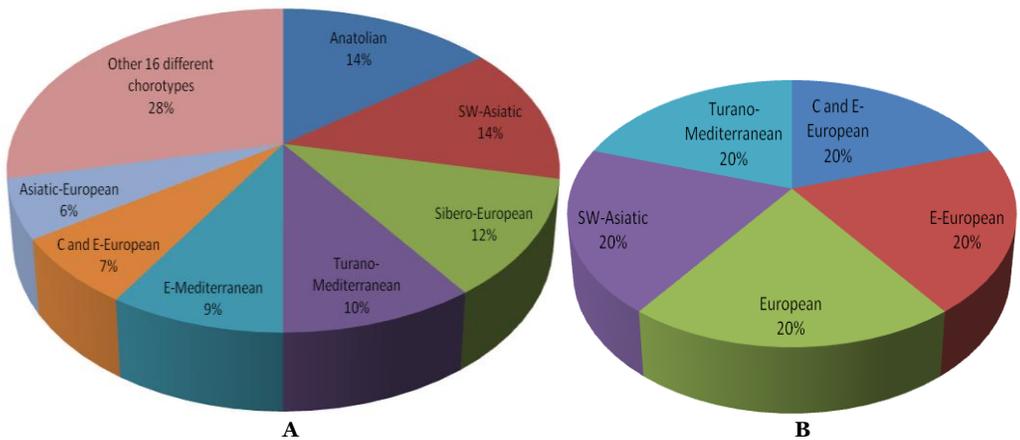


Figure 1. A. Chorotypical distribution of Turkish Chrysomelinae, B. Chorotypical distribution of Turkish Timarchinae.